

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON

11 COLLEGENET, INC., a Delaware)
corporation,)
12 Plaintiff,) No. CV-03-1229-HU
13 v.)
14 XAP CORPORATION, a Delaware)
corporation,) FINDINGS & RECOMMENDATION
15 Defendant.)
16 _____)

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1 - FINDINGS & RECOMMENDATION

1 Daniel Johnson, Jr.
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5 HUBEL, Magistrate Judge:

6 Plaintiff CollegeNET, Inc. brings this patent infringement
7 action against defendant XAP Corporation. Plaintiff is the owner
8 of two patents: United States Patent Number 6,345,278 B1 ("the
9 '278 patent), and United States Patent Number 6,460,042 ("the '042
10 patent). In its Second Amended Complaint, plaintiff brings two
11 claims of patent infringement, one for each of the two patents.
12 Plaintiff also brings a claim for declaratory judgment related to
13 a September 10, 2003 press release published by plaintiff, as well
14 as two claims for unfair competition.

15 Defendant raises affirmative defenses of noninfringement,
16 invalidity, and unenforceability. Defendant additionally
17 counterclaims for declaratory judgments of noninfringement,
18 invalidity, and unenforceability. Finally, defendant also brings
19 claims for unfair competition.

20 Presently, the parties seek construction of various terms of
21 the two patents. This Findings & Recommendation contains my
22 recommended claim constructions.

23 This Court has had the opportunity to previously oversee the
24 adjudication of these two patents in two cases, unrelated to the
25 present case, brought by plaintiff against ApplyYourself, Inc. In
26 case number CV-02-484-HU, plaintiff brought infringement claims
27 against ApplyYourself related to the '278 patent. In case number
28

1 CV-02-1359-HU, plaintiff brought infringement claims against
2 ApplyYourself related to the '042 patent. The cases were
3 consolidated and were tried to a jury in August and September 2003.
4 As part of that litigation, I construed some claims in both
5 patents. CollegeNET v. ApplyYourself, No. CV-02-484-HU, Opinion
6 (D. Or. Dec. 19, 2002) (construing claims in the '278 patent);
7 CollegeNET v. ApplyYourself, Nos. CV-02-484-HU, CV-02-1359-HU,
8 Opinion (D. Or. July 7, 2003) (construing claims in both patents).
9 I refer to my previous constructions as discussed below.

10 BACKGROUND AND OVERVIEW OF THE INVENTIONS

11 I. The '278 Patent

12 As described in the patent itself, students applying to
13 colleges and universities typically complete a separate paper
14 application for each institution to which they seek admission.
15 Exh. A to Sec. Am. Compl. (Col. 1, lines 19-21).¹ The applicant
16 then mails each application to the corresponding institution along
17 with a fee. 1:21-23.

18 Many institutions prefer Internet applications. 1:24-25. One
19 problem with such applications, however, is that the student is
20 required to re-enter the same information for each subsequent
21 application to a different institution or to the same institution
22 perhaps for a different academic term. Additionally, the
23 institution cannot change the application form without revising the
24 source code that creates the application form, making changes
25 expensive and inconvenient. 1:26-34.

26
27

¹ References to the '278 patent will be to this exhibit and
28 will be denoted simply by the column and line number referred to,
such as 1:19-21.

1 One way to reduce the redundancy for the applicant would be to
2 allow students to complete a single, generic application form
3 provided by a third party who would then transmit the application
4 to any designated institution. 1:35-38. The drawback to such a
5 system is that the institution cannot customize its application
6 form. 1:38-48.

7 As described by plaintiff, a typical applicant would use the
8 patented invention by first viewing a college's website and
9 proceeding to the admissions web page. The student would typically
10 be using a personal computer that was running a web browser to
11 access the website. Somewhere in the on-line admissions materials,
12 there is a prompt for applying on line. Clicking on this would
13 lead the student through a series of instruction pages and
14 ultimately to a "log on" page where the student establishes a user
15 ID and a password.

16 Next, the student would receive a prompt which would say
17 something like "Application" or "Apply Now." When the student
18 clicks on this prompt, the browser on the student's computer sends
19 a request over the Internet to the third party servicer's web
20 server. The forms engine processes the request. The request
21 itself would identify the specific college application form being
22 requested and the student who is requesting it.

23 The forms engine then creates a copy of the requested
24 application form for the student. The forms engine can create a
25 copy of the college's application form in a variety of ways. The
26 forms engine queries the database to determine whether the
27 particular student has information stored that corresponds to any
28 of the fields in the newly requested application form. If it is

1 that student's first application with the third party servicer's
2 system, there will be no stored information. If the student has
3 previously filled out other application forms, the forms engine
4 will identify the like fields and obtain data from the database.
5 The forms engine will merge the retrieved data into the
6 corresponding form data fields on the application form. The forms
7 engine will then provide the application form to the student,
8 sending it from the web server over the Internet.

9 The student then enters personal information into the form
10 data fields. When the student clicks "save" or "save and go to
11 next page," the browser will send the information entered by the
12 student and post it to the third party servicer's web server. The
13 forms engine then stores the information into the database.

14 Once the student has completed the form, the student can hit
15 the "transmit" or "send application to school" prompt. It is then
16 possible for the forms engine to perform a "data validation" check
17 on the application. For example, Lewis & Clark College may specify
18 that the "high school attended" and "SAT scores" are required
19 fields and that it will not accept application forms in which those
20 fields are left blank.

21 In addition, error-checking criteria may be specified, such as
22 the "SAT score" must be between 200 and 800. The forms engine
23 compares the data entered by the student for these fields and
24 determines whether they are filled in and whether any specified
25 criteria are met. If the criteria are met, the data is "valid" and
26 will be further processed. If not, the system will send back to
27 the student, over the Internet, an error-correction form or message
28 that the student must change entries for the fields that did not

1 meet the prescribed criteria.

2 Once the application is complete, the student can also select
3 a payment method to "e-pay" the school's application fee.

4 Next, the same student may want to fill out a second
5 application to a different college or university. The student logs
6 on to that school's website and follows the application prompts.
7 The forms engine creates an application form for the student.
8 Assuming both colleges use plaintiff's services, and because the
9 student has previously filled out a form, information regarding
10 that student is already stored in the database. The forms engine
11 will retrieve information required for the second application that
12 the student has already entered on the first application. The
13 forms engine then automatically inserts the previously stored
14 information required by the second application, into the form data
15 fields of the second application form and sends it back to the
16 student over the Internet. . . . The student will fill in the
17 remaining blanks of the form, then "save" it. His or her data will
18 then be sent over the Internet and posted to the web server. The
19 forms engine will then store the data in the database.

20 II. The '042 Patent

21 The '042 patent is a continuation patent of the '278 patent.
22 Exh. B to Sec. Am. Compl. (Col. 1, lines 4-5).²

23 The abstract of the patent explains the patent as follows:

24 A forms engine allows data sharing between customizable
on-line forms, such as college admissions applications.
25 Before applying, an applicant opens an account with a

27 ² References to the '042 patent will be to this exhibit and
28 will be denoted simply by the column and line number referred to,
such as 1:4-5.

1 third party application servicer. After the applicant
2 completes an application for one institution, the data is
3 saved in a data base and automatically populates fields
4 in subsequent application forms. The form for each
5 institution is created from a form description file.
Each form is branded for its institution and forms for
different institutions differ in appearance and content
so that the presence of the third party servicer is
transparent to the applicant.

6 The system is extensible without programming, allowing
7 new applicant attributes to be readily incorporated into
the system and allowing the content and appearances of
8 the application to be readily changed by changing the
description file. The use of aliases for applicant
9 attributes permits data to be readily shared between
forms even though labeled and arranged differently on
different forms. Information stored about each attribute
10 allows the specification of data validation rules and
data sharing and grouping rules, as well as dependency
rules that permit application page content to depend on
applicant's responses on a previous page.

12 Exh. B to Sec. Am. Compl. at p. 1.

13 The attributes of the '042 patent are fairly consistent across
14 the independent claims and include the following general features:
15 (1) presenting a customized form to an applicant; (2) allowing the
16 applicant to enter user and payment information; (3) receiving the
17 user and payment information; (4) processing the user and payment
18 information; and (5) sending the user information back to the
19 institution in a format specified by the institution.

20 The dependent claims further define the form in various ways:
21 (1) as having multiple pages, as seen in claims 6, 21, 33, and 43;
22 (2) providing for data validation at the client computer or after
each page of the multiple page application is posted, as seen in
24 claims 7, 8, 10, 11, 14, 22, 23, 25, 27, 30, and 33; (3) providing
25 for further data validation at the server level or when the
application is completed, as seen in claims 8, 10, 11, 12, 14, 23,
27 25, 27, 28, 30, 34, and 35; and (4) providing for automatic data
28

population between multiple application forms, as seen in claims 4, 19, 36, 37, and 41.

CLAIM CONSTRUCTION STANDARDS

The first step in any validity or infringement analysis is to construe the claims. See, e.g., Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc., 183 F.3d 1347, 1353 (Fed. Cir. 1999) ("the first step in any validity analysis is to construe the claims of the invention to determine the subject matter for which patent protection is sought"); Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc) (first step in two-step patent infringement analysis is to determine "the meaning and scope of the patent claims asserted to be infringed[. . . .] commonly known as claim construction or interpretation[.]"), aff'd, 517 U.S. 370 (1996). The meaning of a term in a patent claim is a matter of law to be resolved by the court. Markman, 517 U.S. at 389-91.

16 Claims should be interpreted, when reasonably possible, to
17 preserve their validity. Modine Mfg. Co. v. United States Int'l
18 Trade Comm'n, 75 F.3d 1545, 1556 (Fed. Cir. 1996). In construing
19 a claim, the court should first look to the intrinsic evidence,
20 that is, the claims themselves, the written description portion of
21 the specification, and the prosecution history. Bell & Howell
22 Document Mgmt. Prods. Co. v. Altek Sys., 132 F.3d 701, 705 (Fed.
23 Cir. 1997).

Generally, claim construction begins with the words of the claim. K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1363 (Fed. Cir. 1999).

27 It is standard practice that in determining the proper
28 construction of an asserted claim, the court looks first
to the intrinsic evidence--the patent specification,

1 including of course the written description, and, if in
 2 evidence, the prosecution history. Absent an express
 3 definition in the specification of a particular claim
 4 term, the words are given their ordinary and accustomed
 meaning; if a term of art, it is given the ordinary and
 accustomed meaning as understood by those of ordinary
 skill in the art.

5 Zelinski v. Brunswick Corp., 185 F.3d 1311, 1315 (Fed. Cir. 1999);
 6 see also Georgia-Pacific Corp. v. United States Gypsum Co., 195
 7 F.3d 1322, 1332 (Fed. Cir.) ("The specification of the patent in
 8 suit is the best guide to the meaning of a disputed term."),
 9 amended, 204 F.3d 1359 (Fed. Cir. 1999).

10 Terms in a claim are given their ordinary meaning to one
 11 skilled in the art unless it appears from the patent and
 12 prosecution history that the inventor used them differently. A
 13 patentee may be his own lexicographer, but any special definition
 14 given to a word must be clearly defined in the specification or
 15 file history. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576,
 16 1582 (Fed. Cir. 1996).

17 Additionally, a claim term should generally be read so as not
 18 to exclude the inventor's device or the inventor's preferred
 19 embodiment. See, e.g., id. at 1581 (claim interpretations
 20 excluding the preferred embodiment are heavily disfavored); Modine
 21 Mfg., 75 F.3d at 1550 ("[A] claim interpretation that would exclude
 22 the inventor's device is rarely the correct interpretation[.]").

23 While examining the patent specification is appropriate, it is
 24 improper to import, or "read in" to a claim, a limitation from the
 25 specification's general discussion, embodiments, and examples.
 26 See, e.g., Intel Corp. v. United States Int'l Trade Comm'n, 946
 27 F.2d 821, 836 (Fed. Cir. 1991) ("Where a specification does not
 28 require a limitation, that limitation should not be read from the

specification into the claims.") (internal quotation omitted); Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988) ("Although the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims.").

It is also improper to eliminate, ignore, or "read out" a claim limitation from a claim in order to extend a patent to subject matter disclosed, but not claimed. See, e.g., Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 93 F.3d 1572, 1582-83 (Fed. Cir. 1996) (court cannot read a limitation out of a claim); see also Unique Concepts, Inc. v. Brown, 939 F.2d 1558, 1562 (Fed. Cir. 1991) (patentee cannot be allowed to expressly state throughout specification and claims that his invention includes a limitation and then be allowed to avoid that claim limitation in infringement suit by pointing to one part of specification stating an alternative lacking the specification).

Claims are not limited to the preferred embodiment. CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1158 (Fed. Cir. 1997) ("as a general matter, the claims of a patent are not limited by preferred embodiments."); see also Amhil Enters., Ltd. v. Wawa, Inc., 81 F.3d 1554, 1559 (Fed. Cir. 1996) ("A preferred embodiment . . . is just that, and the scope of a patentee's claims is not necessarily or automatically limited to the preferred embodiment.").

Finally, when intrinsic evidence is unambiguous, it is improper for the court to rely on extrinsic evidence to contradict the meaning of the claims. See Pitney Bowes, Inc., v.

1 Hewlett-Packard Co., 182 F.3d 1298, 1308-9 (Fed. Cir. 1999). If,
 2 after considering the intrinsic evidence, a claim term is
 3 ambiguous, a court may look to extrinsic evidence to assist in
 4 determining the meaning or scope of terms in a claim. Vitronics,
 5 90 F.3d at 1584. Extrinsic evidence includes expert testimony,
 6 inventor testimony, and technical treatises or articles. Id.
 7 Extrinsic evidence cannot, however, alter the clear meaning of a
 8 claim arising from the patent or prosecution history. Id.

9 DISCUSSION

10 I. Terms Proposed for Construction by Plaintiff

11 Plaintiff seeks the construction of three claim terms or
 12 phrases: (1) automatically; (2) file; and (3) "processing by the
 13 third party forms servicer an electronic payment associated with
 14 the form."

15 A. Automatically

16 The term "automatically" appears in claims 1, 9, 12, 13, 14,
 17 21, and 32 of the '278 patent, and in claims 4, 19, 36, and 38 of
 18 the '042 patent. In each instance, the term modifies one of three
 19 functions: populate, insert, or store. The term principally
 20 appears as "automatically" and occasionally as "automatic." This
 21 different use is immaterial to the construction of the term.

22
 23 I previously construed the term in the December 19, 2002
 24 Opinion in the ApplyYourself case. Dec. 19, 2002 Op. at pp. 10-29.
 25 Plaintiff's proposed construction is the same as the construction
 26 I adopted there. I agree with defendant that the constructions
 27 adopted in the ApplyYourself case are not controlling here. Texas
 28 Instruments, Inc. v. Linear Techs. Corp., 182 F. Supp. 2d 580, 586

1 (E.D. Tex. 2002) (court's claim construction by another judge in
 2 same district in prior suit did not collaterally estop unrelated
 3 defendant from obtaining new claim construction; independent review
 4 of the claims would ensure fairness to all parties).

5 Nonetheless, while the previous claim constructions do not
 6 have preclusive effect here, to the extent neither party raises new
 7 arguments, I defer to the prior claim constructions. KX Indus.,
L.P. v. PUR Water Purification Prods., Inc., 108 F. Supp. 2d 380,
 9 387 (D. Del. 2000), aff'd, 2001 WL 902507 (Fed. Cir. 2001).
 10 Additionally, even in the presence of new arguments, I give
 11 "considerable weight" to my previous claim constructions. See
Colby v. J.C. Penney Co., 811 F.2d 1119, 1123 (7th Cir. 1987)
 13 (under the principles of stare decisis "a court must give
 14 considerable weight to [its own previous decisions] unless and
 15 until they have been overruled or undermined by the decisions of a
 16 higher court, or other supervening developments, such as a
 17 statutory overruling").

18 The construction of "automatically" that I adopted in the
ApplyYourself case is: "Once initiated, the function is performed
 19 by a machine, without the need for manually performing the
 20 function." Dec. 19, 2002 Op. at p. 29. Defendant does not oppose
 21 this construction, but contends that because the term modifies
 22 different functions, the construction of the term must be made
 23 specifically in the context of the claim limitation in which it
 24 appears.

26 I disagree. "Automatically" describes how the function is to
 27 be performed. There is no suggestion from the claim language that
 28 the nature of that performance depends on the particular function

1 being performed. Furthermore, generally, the same meaning is
 2 ascribed to the same claim term. Omega Eng'g, Inc. v. Raytek
 3 Corp., 334 F.3d 1314, 1334 (Fed. Cir. 2003) ("[W]e presume, unless
 4 otherwise compelled, that the same claim term in the same patent or
 5 related patents carries the same construed meaning."). Here, there
 6 is no compelling reason to construe "automatically" as it appears
 7 in each separate claim limitation. Thus, I recommend adoption of
 8 the prior construction of "automatically."

9 B. File

10 This term appears in claims 30 and 32 of the '278 patent. I
 11 previously construed the term to mean "[a]n electronically stored
 12 collection of information that has a unique name." Dec. 19, 2002
 13 Op. at pp. 30-32. Plaintiff contends that I should adopt the same
 14 construction here.

15 Defendant states that while it has no objection to this
 16 construction, the term should be construed in the context of the
 17 claim in which it appears. The term appears in the context of the
 18 phrase "application information file," in claim 32 of the '278
 19 patent. But, it appears independently in claim 30 of the '278
 20 patent, and it was separately construed in the ApplyYourself case.
 21 Given that it appears independently in at least one claim, it
 22 warrants its own independent construction, divorced from the
 23 "application information file" phrase. Accordingly, I recommend
 24 adoption of the prior construction.

25 C. "Processing by the Third Party Forms Servicer
 26 an Electronic Payment Associated With the
 27 Form"

28 This phrase appears in independent claims 1, 16, and 32 of the
 '042 patent. In its entirety, the claim phrase reads: "processing

1 by the third party forms servicer an electronic payment associated
2 with the form, the processed payment being from the form user to
3 the one of the multiple institutions to which the form is
4 directed[.]" 35:29-32; 36:45-48; 37:63-67. Both parties seek
5 construction of this phrase, although defendant adds some
6 additional claim phrases related to the "electronic payment
7 function." For efficiency, I address all proposed constructions
8 related to the electronic payment function, here.

9 The proper construction of this claim phrase was vigorously
10 contested in the ApplyYourself case. After briefing and oral
11 argument, I construed the phrase as follows:

12 Using the received payment information to facilitate the
13 clearance, settlement, and/or transfer of the electronic
14 payment. The processing function includes, but is not
15 limited to, processing by the business entity hosting the
forms engine software and excludes any processing by any
public form user or any of the institutions of higher
education.

16 July 7, 2003 Op. at pp. 25, 45-55. Plaintiff argues for the
17 adoption of this previous construction. Plaintiff additionally
18 argues for the adoption of two terms within this claim phrase which
19 I construed in the ApplyYourself case: (1) "electronic payment":
20 "An electronic transfer of funds, such as an electronic check,
21 credit card or debit card payment. The term electronic payment
22 does not include a fee waiver." (2) "form": "A structured
23 document having a collection of fields for entering and containing
24 data. The form may be rendered to a user on a client computer or
25 any web-browser enabled graphical display." Id. at p. 25.

26 Defendant does not dispute the prior construction of
27 "electronic payment." In the ApplyYourself case, I concluded that
28 the construction of "electronic payment" as "an electronic transfer

1 of funds, such as an electronic check, credit card or debit card
2 payment [and] does not include a fee waiver[,] was appropriate
3 because it was consistent with the claim language. July 7, 2003 Op.
4 at p. 45. That same reasoning applies here. Accordingly, I
5 recommend adherence to the prior construction for "electronic
6 payment."

7 Defendant proposes a different construction for "form": "an
8 electronic document having fields for the entry and display of
9 data, which consists of one or more pages." Curiously, while
10 defendant offers this alternative construction, it makes no mention
11 of the previous construction.

12 Defendant points to two parts of the '278 patent specification
13 in support of its proposed construction of "form." First,
14 defendant notes that the specification states that "[t]he present
15 invention comprises a universal forms engine that permits the
16 creation and processing of customizable electronic forms and
17 selective sharing of information between the customized forms."
18 2:1-4. Based on this, defendant argues that "form" means an
19 electronic document. Next, defendant points to the specification's
20 statement that "[a] form is considered to be essentially a
21 container for data and implies an associated process." 2:22-23.
22 Then, defendant notes that moreover, several claims of the '278
23 patent describe a form as having fields for the entry of
24 information. 22:40-41, 22:57-58, 25:7-8, 26:11-13.

25 Next, because several of the dependent claims in the '278
26 patent refer to multiple form pages and multiple pages, 24:37-40,
27 25:53-54, 26:61, 26:64, defendant argues that the construction of
28 "form" should include that the electronic document consists of one

1 or more pages. Thus, defendant's proposal reads: "an electronic
2 document having fields for the entry and display of data, which
3 consists of one or more pages."

4 I recommend rejecting defendant's proposed construction of
5 "form." The word "electronic" is not necessary because first, it
6 is redundant in that some uses of the word "form" in the patent
7 claims and specification are preceded by "electronic." Second, my
8 previous construction, by discussing how the form may be rendered
9 to the user, implicitly defines "form" as being electronic.

10 Also, the construction does not need to expressly state that
11 a form is one or more pages because by construing the word without
12 reference to any page limitation, none is suggested. Furthermore,
13 the characteristic of multiple pages is expressed in dependent
14 claims. Cases hold that generally, limitations of dependent claims
15 are not normally read into the independent claim from which they
16 depend. Karlin Tech., Inc. v. Surgical Dynamics, Inc., 177 F.3d
17 968, 971-72 (Fed. Cir. 1999).

18 Finally, I agree with plaintiff that there is no support for
19 the inclusion of the word "display" in the construction of form.
20 The specification provides that "a form is considered to be
21 essentially a container for data and implies an associated
22 process." 2:22-23. As such, plaintiff argues that a "display"
23 requirement is not inherent in the meaning of the word form, nor is
24 it required by the specification. I agree with plaintiff that
25 while other claim language may suggest that the "form" is
26 displayed, the term "form" itself does not. Therefore, I recommend
27 rejecting defendant's proposed construction of "form" and adhering
28 to the previous construction.

1 As to the larger claim phrase at issue, defendant suggests
2 that in addition to the claim phrase quoted above regarding
3 electronic payments, other claim phrases related to the electronic
4 payment function need to be construed. Defendant cites to the
5 following claim language: "receiving by the third party forms
6 servicer over the computer network . . . electronic payment
7 information entered by the user." This phrase appears in claims 1,
8 16, and 32 of the '042 patent. 35:26-28; 36:42-44; 37:60-62.
9 Defendant also proposes that the slightly different language in
10 claim 38 be construed: "receiving from the form user via the third
11 party form servicer an electronic payment associated with the
12 customized form[.]" 38:54-56.

13 Defendant offers separate constructions for five subparts of
14 the originally construed phrase quoted at the beginning of this
15 section and the additional phrases quoted in the preceding
16 paragraph. The subparts proposed for construction are: (1)
17 "processing . . . an electronic payment associated with the form";
18 (2) "receiving . . . electronic payment information"; (3) "by the
19 third party forms servicer"; (4) "via the third party form
20 servicer"; and (5) "entering payment information."

21 1. "By the Third Party Forms Servicer"

22 Because the central dispute in regard to this electronic
23 payment phrase concerns the phrase "by third party forms servicer,"
24 I start with it. The heart of the dispute regarding this claim
25 phrase in the ApplyYourself case was whether the entire function of
26 processing the electronic payment had to be exclusively performed
27 by the third party forms servicer itself or whether the third party
28 forms servicer could contract with another party to perform the

1 function. July 7, 2003 Op. & Ord. at pp. 44-55. I rejected the
2 argument that the function had to be performed exclusively by the
3 third party forms servicer. Thus, my claim construction indicates
4 that the processing function includes processing by the business
5 entity hosting the forms engine software, but that the processing
6 is not limited to that entity. Defendant here contends that my
7 prior construction was in error.

8 Defendant raises arguments similar to those raised by the
9 defendant in ApplyYourself and which I considered and rejected.
10 For example, defendant points to Figure 15 in the '042 patent as
11 demonstrating that the payment processing occurs inside the forms
12 engine operated by the third party forms servicer. But, as
13 explained in the July 7, 2003 Opinion, this argument "fails to
14 account for the fact that a fourth entity must be involved in the
15 processing of an electronic payment because of the nature of all
16 electronic payments." July 7, 2003 Op. at p. 53. Because the
17 electronic payment function requires a financial intermediary which
18 authenticates credit cards and verifies account balances and two
19 banks, the function necessitates the involvement of entities other
20 than the forms engine host. Id. at pp. 53-54. Even if the
21 business entity hosting the forms engine were to acquire the
22 ability to perform the credit card clearinghouse function, the
23 electronic payment processing function still requires the
24 participation of two banks whose functions cannot be delegated to
25 a non-bank entity. Id. at p. 54. Thus, reliance on Figure 15 is
26 unpersuasive.

27 In the July 7, 2003 Opinion, I also addressed the defendant's
28 argument that because the claim language provides that the third

1 party forms servicer receives and processes both user information
 2 and electronic payment information and because the business entity
 3 hosting the forms engine is the third party forms servicer entity
 4 which processes the user information, it must be that same entity
 5 that processes the payment information. I rejected this argument
 6 in favor of plaintiff's argument that because these are "comprising
 7 claims," nothing in the claim language precludes another party from
 8 taking part in the processing of electronic payments. As I
 9 explained:

10 However, plaintiff notes that these are "comprising"
 11 claims which recite required steps and elements, but
 12 which do not preclude additional steps or elements.
Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc., 212
 13 F.3d 1377, 1382-83 (Fed. Cir. 2000) ("The phrase
 14 'consisting of' is a term of art in patent law signifying
 15 restriction and exclusion while, in contrast, the term
 16 'comprising' indicates an open-ended construction. . . .
 17 In simple terms a drafter uses the phrase 'consisting of'
 18 to mean 'I claim what follows and nothing else.' A
 19 drafter uses the term 'comprising' to mean 'I claim at
 20 least what follows and potentially more.'"') (citations
 21 omitted); Georgia-Pacific Corp. v. United States Gypsum
 22 Co., 195 F.3d 1322, 1327-28 (Fed. Cir. 1999) (use of the
 23 word "comprising" means including the elements that
 24 follow, but not excluding additional, recited elements).

25 Plaintiff argues that because these are "comprising"
 26 claims, nothing in the claim language precludes another
 27 party from taking part in the processing of electronic
 28 payments. Plaintiff contends that as "comprising"
 29 claims, the claims merely require that the third party
 forms servicer include the business entity hosting the
 forms engine as a party involved in the processing of
 payments, but not the sole party performing that
 function.

30 I agree with plaintiff. Although the claim language
 31 noted by defendant requires the "third party forms
 32 servicer" to "receive" both user and payment information
 33 and then to "process" both user and payment information,
 34 it does not, by itself, limit the interpretation of
 35 "third party forms servicer" to the forms engine host
 36 business entity nor does it preclude that entity from
 37 utilizing a fourth party to participate in the
 38 "processing." I note that the parties themselves define
 39 "processing" to include "facilitation" of the electronic
 40 payment. This suggests that the role of the "third party
 41 forms servicer" is not restricted to the actual

1 performance of the processing function, but may include
 2 a facilitator capacity.

3 Given the nature of a "comprising" claim, additional
 4 elements may be part of the claim. Accordingly, based on
 5 the claim language, I interpret the disputed phrase
 6 "processing by the third party forms servicer," to mean
 7 that the processing function, as previously construed by
 8 the parties, includes, but is not limited to, processing
 9 by the business entity hosting the forms engine software
 10 and excludes any processing by any public form user or
 11 any of the institutions of higher education.

12 July 7, 2003 Op. at pp. 48-49.

13 Defendant in the present case renews the argument made by the
 14 defendant in ApplyYourself and suggests that I misinterpreted the
 15 law regarding "comprising" claims. I disagree.

16 Defendant primarily relies on Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261 (Fed. Cir. 1986). There, the court rejected
 17 Moleculon's argument that "comprising" language opened the patent
 18 claim and its individual method steps to additional structural
 19 elements in addition to opening the claim to additional steps. Id.
 20 at 1271. The court concluded that Moleculon's position was too
 21 broad. Id. The court held that while

22 a transitional term such as "comprising" or, as in the
 23 present case, "which comprises," does not exclude
 24 additional unrecited elements, or steps (in the case of
 25 a method claim), . . . the transitional phrase does not,
 26 in the present case, affect the scope of the particular
 27 structure recited within the method claim's step.
 28 Id.

29 Defendant also cites to a 1997 case for the proposition that
 30 "'[c]omprising' is a term of art used in claim language which means
 31 that the named elements are essential, but other elements may be
 32 added and still form a construct within the scope of the claim."
 33 Genentech, Inc. v. Chiron Corp., 112 F.3d 495, 501 (Fed. Cir.
 34 1997).

1 Defendant relies on these cases to argue that the term
2 "comprising" cannot be used to read out the claim limitation's
3 express requirement that processing an electronic payment be
4 performed by a third party forms servicer. Defendant argues that
5 the

6 open-ended "comprising" term permits the inclusion of
7 additional steps, which may or may not be performed by
8 additional actors, but it cannot alter or abrogate the
9 express requirement that the *third party forms servicer*,
10 i.e., the same entity responsible for *processing the forms*,
11 actually perform the *payment processing* step.

12 Deft's Op. Cl. Constr. Brief at p. 29.

13 What defendant fails to recognize is that the prior
14 construction requires the business entity hosting the forms engine
15 to retain responsibility for processing the electronic payment.
16 The construction mandates processing by the business entity hosting
17 the form (e.g. the third party forms servicer that also processes
18 the user information) but allows some processing steps related to
19 electronic payments to be performed by another entity, except the
20 public form user or any of the institutions of higher education.
21 Thus, the prior interpretation is consistent with the law regarding
22 "comprising" claims because it keeps the "named element" of having
23 the third party forms servicer that also processes the user
24 information, process the electronic payment information, but it
25 allows the extra step of a fourth entity participating in such
26 processing along with that third party forms servicer. I
27 fundamentally disagree with defendant's argument that all of the
28 electronic payment function process must be performed by the host
of the forms engine. That entity must perform some, but not all,
of the electronic payment function. Accordingly, I recommend

1 adhering to the prior construction for the reasons initially
2 explained in the July 7, 2003 Opinion and expressed herein.

3 2. "Via the Third Party Forms Servicer"

4 This phrase appears in claim 38 of the '042 patent. Defendant
5 proposes the following construction: "[t]he institution taking
6 possession of funds in its account through an electronic transfer
7 of those funds from the form user, where the funds that are being
8 transferred to the institution from the user have come by way of or
9 by means of the third party form servicer." To the extent this
10 phrase requires construction at all, I construe it consistently
11 with my previous construction in the ApplyYourself case and
12 consistently with the construction for "by the third party forms
13 servicer" discussed in the preceding section. That is, the third
14 party forms servicer, because it is required to be involved in the
15 processing function as described above, may ultimately transfer the
16 funds from the user to the institution, but other portions of the
17 payment processing function may have been performed by a separate
18 entity so long as it is not the user/applicant or the institution.

19 3. "Processing . . . an Electronic
20 Payment Associated with The Form"

21 Defendant proposes the following construction for this claim
22 phrase: "[s]ubjecting an electronic payment associated with the
23 form to[,] or handling an electronic payment associated with the
24 form through[,] an established and routine set of procedures for
25 effecting an electronic transfer of funds, including procedures for
authorization, clearance and settlement."

26 Since "electronic payment" and "form" have already been
27 addressed, the only remaining term in this phrase actually needing
28

1 construction is "processing." Plaintiff proposes that "processing"
2 in the context of the payment function be construed as "the
3 manipulation of data within a computer system." Defendant argues
4 that the term means "'to subject to a special process or treatment
5 (as in the course of manufacture'" or "'to subject to or handle
6 through an established usu. routine set of procedures[.]'" Deft's
7 Op. Cl. Constr. Brief at pp. 25-26 (quoting Merriam Webster's
8 Collegiate Dictionary 929 (10th ed. 1994)). Thus, defendant's
9 proposed construction for this claim phrase uses the terms
10 "subjecting . . . to[,] or handling . . . through[,] an established
11 and routine set of procedures[.]"

12 Defendant contends that because the claim specifies that the
13 third party forms servicer processes an electronic payment rather
14 than electronic payment information as recited in the previous
15 limitation regarding the receipt by the third party forms servicer
16 of electronic payment information entered by the user, the term
17 "processing" as used in the phrase "processing by the third party
18 forms servicer an electronic payment associated with the form,"
19 means something more than "processing" information or data.
20 Defendant also contends that if "processing" means only the
21 manipulation of data within a computer system, then the stated and
22 claimed goal in the subsequent claim limitation which recites
23 "relieving the institution of the administrative burden of
24 processing forms and payments," would not be achieved.

25 I disagree with defendant. First, the distinction between
26 "electronic payment" and "electronic payment information" does not
27 support defendant's construction. Under the claim language, an
28 "electronic payment" gets "processed" while "electronic payment

1 information" gets "received." Thus, there is no basis to conclude
2 that the term "processing" when used with "electronic payment"
3 means anything more than "the manipulation of data within a
4 computer system." The previous function is restricted to receiving
5 information which requires no manipulation of data.

6 Second, I reject defendant's argument that "manipulation of
7 data within a computer system" is insufficient to relieve the
8 institution of processing forms and payments. "Manipulation" is a
9 broad term and is not confined, in this construction, to a narrow
10 task.

11 Accordingly, I recommend that plaintiff's proposed
12 construction for "processing" be adopted.

13 4. "Receiving by the Third Party Forms
14 Servicer Over the Computer Network
15 User Information and Electronic
16 Information Entered by the User"

17 Defendant proposes the following construction: "[t]he third
18 party forms servicer takes possession of the electronic payment
19 information entered by the user, but need not do anything with it."
20 Defendant notes that the act of "receiving" is passive and stands
21 in contrast to "processing" which requires the third party forms
22 servicer to do something.

23 I agree with defendant and conclude that this proposed
24 construction is supported by the claim language. I also note that
25 defendant's argument in regard to this phrase underscores my
26 reasoning in regard to the construction of the term "processing."
27 I recommend that defendant's proposed construction of the
28 "receiving" phrase be adopted.

1 5. "Entering Payment Information Onto the Form"

2 Dependent claims 2 and 17 of the '042 patent provide a
3 limitation in which the payment information entered by a user is
4 entered onto the form. Defendant contends that the claims refer,
5 as their antecedent basis, to the form claimed in independent
6 claims 1 and 16, respectively. Thus, defendant argues, entering
7 the payment information onto the form must mean "entering the
8 payment information in some designated data field(s) of the form
9 generated by the forms engine program and customized in its
10 appearance and content in accordance with the preferences of the
11 institution." I agree with defendant that this construction is a
12 fair interpretation of the claim language and I recommend that it
13 be adopted.

14 II. Terms Proposed for Construction by Defendant

15 Defendant groups its constructions into six different
16 functions performed by the invention covered by the two patents.
17 One of these groups addresses all of the claim limitations directed
18 at the "electronic payment function." As noted above, the
19 preceding discussion of plaintiff's proposed construction of
20 "processing by the third party forms servicer an electronic payment
21 associated with the form," includes a discussion of defendant's
22 proposed constructions for the "electronic payment function" and
23 there is no need to further address those constructions.

24 The remaining five functions are: (1) forms engine; (2) user
25 information database; (3) no rewriting of code; (4) forms
26 processing; and (5) relief from administrative burden. In
27 addition, defendant proposes constructions for two miscellaneous
28 terms: (1) metadata; and (2) relational database.

1 A. Forms Engine Function

2 1. "Application Form" and "Application"

3 "Application" appears in claims 1 and 32 of the '278 patent
4 and in claim 26 of the '042 patent. "Application form" appears in
5 claims 1 and 32 of the '278 patent and in claim 39 of the '042
6 patent. Defendant proposes slightly different constructions for
7 each term.

8 Defendant argues that "application form" should be construed
9 as "a form representing an application for admission to a higher
10 education institution." Defendant bases its proposal on the
11 preamble to claim 1 of the '278 patent which recites: "[a] method
12 of creating and processing over a computer network forms
13 representing applications to different higher education
14 institutions[.]" 22:34-36. Defendant argues that because the
15 preamble indicates that claim 1 is directed to a method that
16 results in application forms to "higher education institutions,"
17 the construction of "application form" must include a reference to
18 such institutions.

19 In contrast, defendant proposes the following for the
20 construction of "application": "[a] form representing an
21 application to an institution." Defendant notes that because the
22 preamble of claim 32 of the '278 patent refers only to
23 "applications to institutions" and not "forms" for "applications"
24 to "institutions of different higher education institutions,"
25 "application" must be construed more broadly to refer to all
26 "institutions."

27 Plaintiff argues that neither of these terms need to be
28 construed because they carry only their ordinary meaning and not a

1 technical or special meaning. In such cases, construction is not
2 necessary. Defendant suggests that the district court must
3 construe every term proposed for construction by a party.
4 Defendant's cited authority does not support this proposition. In
5 Sulzer Textil A.G. v. Picanol N.V., 358 F.3d 1356, 1366 (Fed. Cir.
6 2004), the court held that "the district court must instruct the
7 jury on the meanings to be attributed to all disputed terms used in
8 the claims in suit so that the jury will be able to intelligently
9 determine the questions presented." Id. (internal quotation
10 omitted). That statement, however, was made in the context of
11 resolving the question of whether a district court must instruct
12 the jury on all the constructions it actually rendered. Id. at
13 1365-66. The court did not consider the question of whether a
14 claim term which appears to be used in its ordinary sense, and not
15 in any particular technical or scientific sense, must be construed
16 simply because one party requests its construction.

17 While claim terms "must be construed as they would be
18 understood by a person of ordinary skill in the art to which the
19 invention pertains," and thus, "[w]hat the claim terms would mean
20 to laymen is irrelevant[,]" Searfoss v. Pioneer Consol. Corp., 374
21 F.3d 1142, 1149 (Fed. Cir. 2004), if a person of ordinary skill in
22 the art would understand the term in its ordinary, everyday sense,
23 there is no need to construe the term. E.g., Biotec Biologische
24 Naturverpackungen GmbH & Co. KG v. Biocorp, Inc., 249 F.3d 1341,
25 1349 (Fed. Cir. 2001) (district court did not err when it declined
26 to construe "melting" when the meaning of "melting" did not depart
27 from its ordinary meaning or otherwise require construction);
28 Appelra Corp. v. MicrosMass, UK, Ltd., 186 F. Supp. 2d 487, 524,

1 526 (D. Del. 2002) (court declined to construe terms "maintain,"
 2 "maintaining," and a "whereby" clause because they were clear on
 3 their face and the meaning was "self-evident"); Zip Dee, Inc. v.
 4 Dometic Corp., 63 F. Supp. 2d 868, 872 (N.D. Ill. 1998) (rejecting
 5 defendant's "artificial construct" of the term "tension" because no
 6 construction beyond the "ordinary English language meaning of the
 7 term" was required and thus, the patent's "references to 'tension'"
 8 [would] go to the jury without the interposition of any judicial
 9 gloss.").

10 Both "application" and "application form" are easily
 11 understood terms which the patents use in their ordinary sense.
 12 Neither the claim language nor the specification suggests that the
 13 meaning is anything other than the form used to apply to an
 14 institution or an institution of higher education. To the extent
 15 any construction is needed, I agree with plaintiff that it should
 16 be limited to "a form corresponding to an application."

17 I further conclude that only the term "application" needs the
 18 construction. "Application form" needs no further construction
 19 because it already clearly communicates its ordinary, everyday
 20 meaning in its own words. To apply the construction for
 21 "application" to "application form" would be an exercise in
 22 redundancy.

23 Additionally, there is no support in the claim language to
 24 restrict "application form" to an admissions application. The term
 25 "admissions" is not used to modify "application form" in claim 1 of
 26 the '278 patent. The specification of the '042 patent indicates
 27 that although the preferred embodiment of the invention is directed
 28 toward admissions forms, the invention may be used for "processing

1 many different types of forms." 9:25.

2 Finally, I reject defendant's suggestion that "application
 3 form" is restricted to applications to "institutions of higher
 4 education" while "application" corresponds to the broader
 5 "institutions." The only reference to institutions of higher
 6 education is in the preamble to claim 1 of the '278 patent. It
 7 does not appear anywhere else in that claim and it does not appear
 8 in claim 32 of the '278 patent or in claim 39 of the '042 patent,
 9 claims which also refer to "application form." Generally,
 10 "[l]anguage in a preamble limits a claim where it breathes life and
 11 meaning into the claim, . . . but not where it merely recites a
 12 purpose or intended use of the invention." Innova/Pure Water, Inc.
 13 v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1118 (Fed.
 14 Cir. 2004) (citation omitted). In this case, the reference to
 15 "institutions of higher education" in the preamble is only a
 16 recitation of a purpose or intended use and adds no separate
 17 meaning to the claim.

18 Accordingly, I recommend that plaintiff's proposed
 19 construction of "a form corresponding to an application," be
 20 adopted for the term "application."

21 2. "Institution"

22 This term appears in claims 1, 21, and 32 of the '278 patent
 23 and in claims 1, 16, 32, and 38 of the '042 patent. Defendant
 24 proposes it be construed as "an established organization or
 25 corporation." Defendant's construction is based on a definition
 26 from Merriam Webster's Collegiate Dictionary 606 (10th ed. 1994).

27 Plaintiff argues that the term needs no construction because
 28 it is used only in its ordinary meaning. I agree with plaintiff

1 that because the term is used only in its plain, customary meaning
2 and there is no technical or scientific meaning ascribed to it,
3 providing a construction for the term simply adds unnecessary
4 complexity.

5 3. "Creating" or "Generating"

6 One or both of these terms appear in claims 1, 2, 21, and 32
7 of the '278 patent, and in claim 1 of the '042 patent. Defendant
8 again relies on Merriam Webster's Collegiate Dictionary to construe
9 the terms as "bringing into existence." I agree with plaintiff
10 that because these terms are used only in their ordinary, everyday
11 sense, there is no need to construe them.

12 4. "In Response to a Request"

13 This term appears in claims 1, 21, and 32 of the '278 patent
14 and claims 1, 19, and 36 of the '042 patent. Defendant states that
15 both "response" and "request" have their common, everyday meanings.
16 Nonetheless, defendant proposes that the phrase be construed as "in
17 reaction of an instance of a user asking for that form." Plaintiff
18 argues that the phrase needs no construction as it is readily
19 understandable without further elaboration. I agree with plaintiff
20 that the phrase need not be construed because even as defendant
21 notes, the words are used in their ordinary, plain meaning.

22 5. "Providing" and "Transmitting"

23 "Providing" is seen in claims 1 and 32 of the '278 patent and
24 in claims 1, 16, 32, and 38 in the '042 patent. For example, in
25 claim 1 of the '278 patent, it is used as follows: "providing to
26 the applicant over a computer network the first application
27 form[.]" 22:42-43. "Transmitting" appears in claims 6, 27, and 32
28 of the '278 patent. For example, in claim 32, it is used as

1 follows: "transmitting the customized application over a computer
2 network to a requesting applicant[.]" 26:17-18.

3 For "providing," defendant seeks the following construction:
4 "making the generated form available to the user." For
5 "transmitting," defendant proposes: "sending the generated form to
6 the user." Defendant relies on Merriam Webster's Collegiate
7 Dictionary for its proposed constructions.

8 Plaintiff argues that the terms "providing" and "transmitting"
9 are everyday words used in their ordinary, everyday sense and thus,
10 they need no construction. I agree with plaintiff. I further
11 agree with plaintiff that neither the claim language nor the
12 specification requires the construction to include the object of
13 the action, e.g. "the generated form", or to whom it is directed,
14 e.g. "the user." For example, if defendant's construction of
15 "transmitting" were used, the claim phrase "transmitting the
16 customized application over a computer network to a requesting
17 applicant" in claim 32 of the '278 patent, would read: "'sending
18 the generated form to the user' the customized application over a
19 computer network to a requesting applicant." I agree with
20 plaintiff that this makes the claim limitation unreadable.

21 6. "Forms Engine Program" and "Forms Generator"

22 Claim 21 of the '278 patent and claim 1 of the '042 patent
23 refer to the software program that generates a response to a
24 request from a user. Claim 21 of the '278 patent provides: "a
25 forms engine program operating on the server computer for
26 generating a form from the form description information[.]" 25:3-
27 5. Claim 1 of the '042 patent states: ". . . the form being
28 generated by a forms generator that generates multiple forms

1 corresponding to multiple institutions of higher education, the
2 forms generator generating forms that are . . . " 35:11-14.

3 Defendant proposes one construction for both phrases: "a
4 software program responsible for performing, among other tasks, the
5 creation or generation of multiple forms corresponding to multiple
6 institutions." Plaintiff proposes separate, but simpler phrases:
7 "A software program that can be used to generate a form" for the
8 term "forms engine program" and "a software program that can be
9 used to generate forms" for the term "forms generator."

10 Both parties' proposals incorporate the phrase "a software
11 program." I agree with the parties that the phrase "forms engine"
12 is used in the technical, computing sense to mean "a software
13 program." I further agree, as is seen in both parties' proposals,
14 that the phrase "forms engine program" can generally be understood
15 as a software program that creates or generates forms.

16 Plaintiff contends that defendant's proposal inappropriately
17 inserts "among other tasks" which suggests that the forms engine
18 program and forms generator are required to perform unspecified
19 other tasks, other than generating forms. I agree with plaintiff
20 that the claim language and specification does not support a
21 construction suggesting that the forms engine program or forms
22 generator must be able to perform other tasks. While the forms
23 engine program or forms generator may actually be able to do so,
24 the claims do not mandate the performance of other tasks. The
25 disclosed function for forms engine program and forms generator
26 appears limited to generating forms.

27 I agree with defendant that the construction for both terms
28 properly includes the reference to "multiple forms corresponding to

1 multiple institutions." Plaintiff notes that in claim 21, the term
2 "forms engine program" is used only in conjunction with the
3 generation of a form, in the singular, not multiple forms.
4 Dependent claim 23 in the '278 patent discusses a forms engine
5 program that can generate more than one form. But, plaintiff
6 argues, the requirement that it generate more than one form does
7 not derive from the phrase "forms engine program" itself, but from
8 additional language in the claim.

9 I disagree with plaintiff. The preamble to claim 21 provides
10 for "[a] system for creating and processing customized forms for
11 unrelated institutions." 24:52-53. This establishes that the
12 purpose of the claim is to create more than one form. Each step in
13 the claim discusses "form" in the singular because the system
14 generates only one form at a time. But, the invention, to fulfill
15 its purpose, must include a forms generator or forms engine program
16 that generates multiple forms. The whole point of the invention is
17 that a single forms generator or forms engine program can generate
18 forms for multiple institutions and populate subsequent forms with
19 data stored from earlier forms. A construction of "forms
20 generator" and "forms engine program" without the requirement of
21 generating multiple forms for multiple institutions would exclude
22 the invention.

23 This distinguishes this reference to the preamble from the one
24 discussed above in connection with the terms "application" and
25 "application form." There, the preamble's reference to
26 "institutions of higher education" was not a separate claim
27 limitation because it merely recited a purpose of the invention.
28 Here, while the use of the plural "forms" also indicates a purpose

1 of the forms engine program, the plural term is required for the
2 forms generator and forms engine program to have any meaning which
3 comports with the invention.

4 Notably, defendant's proposed construction does not require
5 that the forms engine program or the forms generator generate
6 multiple forms simultaneously. The requirement is only that the
7 forms engine program or forms generator be able to generate more
8 than one form, not that it do so at the same time.

9 Thus, I recommend that the terms "forms engine program" and
10 "forms generator" both initially be construed to mean "a software
11 program which creates or generates multiple forms corresponding to
12 multiple institutions."

13 Finally, although perhaps not obvious in the proposed
14 constructions of these phrases, the briefing reveals that the
15 parties dispute whether "a software program" as used in the
16 construction of "forms generator" and "forms engine program" is a
17 single program or multiple programs. Defendant contends that the
18 "forms engine program" or "forms generator" is a single program
19 that generates multiple forms corresponding to multiple
20 institutions. Defendant relies on a reference in claim 1 of the
21 '042 patent to "a forms generator" in the singular, "that generates
22 multiple forms . . ." 35:12-14 (emphasis added). Defendant also
23 notes that the prosecution history reveals that one of the named
24 inventors differentiated the invention disclosed in the '278 patent
25 from an earlier version of the system called "ApplyWeb I," by
26 noting that ApplyWeb I required a separate software program for
27 each application form for each school. Exh. A to Deft's Op. Cl.
28

1 Constr. Brief.³ Thus, defendant contends, the invention disclosed
2 in the patents in suit must be to a single program.

3 Plaintiff counters this argument by noting that the word "a",
4 as used in defendant's proposed construction "a software program"
5 is typically understood to mean "one or more" in patent claims.

6 Tate Access Floors, Inc. v. Interface Architectural Resources,
7 Inc., 279 F.3d 1357, 1370 (Fed. Cir. 2002). Thus, by using "a
8 software program," the construction means one or more programs.
9 Plaintiff also notes that it is common for a "program" to include
10 other "code," which may also be considered a "program," or to call
11 upon other "programs," containing certain functions, with the
12 "programs" working together to create a desired result.

13 Plaintiff argues that as long as the "forms engine program" or
14 "forms generator" is involved in the generation process, the claim
15 language is satisfied. Plaintiff also contends that nothing in the
16 plain language of the claim deviates from this typical
17 understanding or requires the "forms engine program" or "forms
18 generator" to be the only software included in the form generation.

19 Plaintiff argues that as long as the "forms engine program" or
20 "forms generator" is involved in the generation process, the claim
21 language is satisfied. Plaintiff also contends that nothing in the
22 plain language of the claim deviates from this typical
23 understanding or requires the "forms engine program" or "forms
24 generator" to be the only software included in the form generation.

25 Furthermore, plaintiff argues, the intrinsic evidence

27 ³ I request that in the future, defendant paginate all
28 exhibits and refer to specific pages of an exhibit when citing to
it.

1 contradicts defendant's position. In the preferred embodiment, the
2 "forms engine" operates in concert with other software such as the
3 web server software and the database management system software.
4 Plaintiff argues that while the specification states that the
5 "preferred implementation of the invention comprises a single forms
6 engine program . . .", this statement is limited to the preferred
7 implementation and implies that implementations using more than one
8 forms engine are possible.

9 I agree with plaintiff. Because the forms generator or forms
10 engine program may use other code or programs to actually generate
11 the form, and because it generates the form only in tandem with the
12 web server and the database management software, it cannot be
13 restricted to a single program. While it could be just a single
14 software program that generates the forms, it should not be
15 confined to a single program. Thus, I recommend that the following
16 construction be adopted for "forms generator" and "forms engine
17 program": "a software program, which, with or without additional
18 software programs, creates or generates multiple forms
19 corresponding to multiple institutions."

20 7. "Form Description Information,"
21 "Application Description
22 Information," and "Application
23 Information File"

24 While defendant proposes different constructions for these
25 three terms, I consider them together because they are related.
26 "Form description information" appears in claim 21 of the '278
27 patent as follows: "first data storage in communication with the
28 server computer and including form description information
specifying the content and appearance of each customized form[.]"

1 24:59-62. The phrase appears again in that claim: "a forms engine
2 program operating on the server computer for generating a form from
3 the form description information in response to a request for the
4 form transmitted . . ." 25:3-5.

5 "Application description information" appears in dependent
6 claim 2 of the '278 patent: "[t]he method of claim 1 in which
7 creating a first application form customized in accordance with the
8 preferences of the first institution includes generating a first
9 application in accordance with stored application description
10 information . . ." 23:16-20.

11 Defendant proposes parallel constructions for these two terms.
12 First, for the "form description information" phrase, defendant
13 proposes the following construction: "information describing a
14 form that is sufficient to enable the forms engine program to
15 generate the described form." For "application description
16 information," defendant proposes: "information describing an
17 application form that is sufficient to enable the forms engine
18 program to generate the described application form." Defendant
19 notes that the '278 patent specification uses "form information"
20 and "application information" interchangeably to describe the
21 information stored in the application data file. 5:61-63; 6:19-22.
22 Accordingly, defendant contends that the two phrases should be
23 similarly construed.

24 Plaintiff does not disagree that "form description
25 information" and "application description information" should
26 receive parallel constructions. But, plaintiff contends that there
27 is no reason not to adopt the construction I gave "form description
28 information" in the ApplyYourself case and then use that as the

1 basis for the parallel construction of "application description
2 information."

3 The construction I rendered in the ApplyYourself case for
4 "form description information" was "the information used to
5 customize a form." July 7, 2003 Op. at pp. 38-43. My analysis of
6 the meaning of the term rendered in the ApplyYourself case is
7 equally applicable here. The construction adopted there is
8 consistent with the ordinary meanings of the terms in the phrase.
9 Additionally, I am reluctant to adopt a construction that
10 incorporates another construed phrase as defendant proposes here.
11 Defendant's proposed construction uses "forms engine program."
12 Thus, the jury will have to cross-reference the construction for
13 "forms engine program" to understand the meaning of "form
14 description information." Because the construction from the
15 ApplyYourself case sufficiently explains the phrase while avoiding
16 this cross-referencing problem, I recommend that that construction
17 be adopted in this case for the term "form description
18 information." I also recommend that "application description
19 information" be construed to mean "the information used to
20 customize an application."

21 The phrase "application information file" appears in the
22 following step of claim 32 of the '278 patent: "providing at least
23 two application information files, each describing a customized
24 application for an institution[.]" 25:64-65. It also appears
25 again in a following step: "generating a customized application in
26 response to a request over a computer network from an applicant,
27 the application form and content being specified by one of the at
28 least two application information files, . . ." 26:8-11.

1 In the ApplyYourself case, I construed "application
2 information file" as "a file that stores information that includes
3 a description of a distinct application form. The file describes
4 the form itself, not the user data (e.g. student specific
5 information) that may ultimately be entered into a particular copy
6 of the form." Dec. 19, 2002 Op. at p. 30.

7 Defendant concedes that the previous construction is generally
8 correct, but defendant argues that more specificity is required.
9 Without citing to any part of the patent specification, defendant
10 contends that both the specification and the claim language suggest
11 that "application information file" should be construed to mean "a
12 uniquely named text or template file that contains the instructions
13 and pattern descriptions that enables the forms engine program to
14 create a distinct application form that is customized in its
15 appearance and content."

16 Plaintiff contends that defendant's proposal introduces new
17 phrases without any support, such as "pattern description," that
18 are confusing and undefined. As such, and because defendant
19 concedes that it does not disagree with our prior construction,
20 plaintiff argues that I should adopt my prior construction.

21 I agree with plaintiff. Defendant's proposal unnecessarily
22 adds new, undefined phrases which will only lead to increased
23 complexity in the claims construction process.

24 Furthermore, with a separate definition of "file" as rendered
25 above, ("an electronically stored collection of information that
26 has a unique name"), there is no need to construe "application
27 information file" as something "uniquely named." I do agree with
28 defendant that the addition of the words "text or template" to

1 modify "file" is warranted by the claim language. In the
2 discussion of the construction of "application information file" in
3 the December 2002 Claims Construction Opinion on the '278 Patent,
4 I noted that the use of the word "file" in that claim phrase was a
5 "text, or perhaps template, file that stores the directions to
6 produce the customized form for each institution." Dec. 19, 2002
7 Op. at p. 31. While this reference to "text, or perhaps template,"
8 did not make it into the final claim construction of the phrase, I
9 conclude that the term "application information file" should be
10 construed with that modification of "file." Thus, I recommend that
11 the following construction of "application information file" be
12 adopted: "A text or template file that stores information that
13 includes a description of a distinct application form. The file
14 describes the form itself, not user data (e.g. student specific
15 information) that may ultimately be entered into a particular copy
16 of the form."

17 B. User Information Database Function

18 This function is initially seen in the following language from
19 the three independent claims of the '278 patent:

20 storing the posted applicant information in a database
21 having a database field structure defined by multiple
22 database fields, the database including multiple records,
23 each record capable of storing information corresponding
24 to each of the database fields[.]

25 22:49-52; 24:55-67; 26:4-7.

26 The following claim language from claim 1 of the '278 patent
27 also encompasses the "user information database function":

28 automatically storing the applicant information entered
29 into the second form data fields into the database by
30 adding new records to the database, the automatic storing
31 of the applicant information not altering the database
32 field structure, thereby allowing new form data fields

1 corresponding to applicant information not previously
2 requested to be added to an application form without
3 requiring alterations of existing application forms or of
4 programs that access the database, whereby customized
5 applications to different institutions share data through
6 common, extensible data storage.

7 23:5-15. The other independent claims express a similar function.

8 25:16-23; 26:25-33.

9 Defendant also points to dependent claim 11 and this
10 particular language as being relevant to the user information
11 database function:

12 The method of claim 1 in which storing the posted
13 applicant information in a database having a database
14 field structure defined by multiple database fields
15 includes parsing the applicant information within a [sic]
16 into data elements, the data elements being separately
17 stored and identified, thereby allowing the data elements
18 to be separately retrieved and rearranged in subsequent
19 applications.

20 23:66-67 - 24:1-5.

21 From these claim limitations, defendant proposes constructions
22 for: (1) database; (2) database field structure; (3) defined by
23 multiple database fields; (4) multiple records; (5) record; (6)
24 data element; (7) by adding new records to the database without
25 altering the database field structure; and (8) extensible.

26 The claim language at issue here, unlike other words or terms
27 in the claims, is not used in its ordinary, customary sense, and is
28 used in a technical sense. Thus, construction is required.

29 In regard to this function, one of the fundamental issues is
30 whether the database storage is exclusively in a format, or
31 structure, that is based on the concept of tables as one ordinarily
32 thinks of a table for organizing information, a combination of rows
33 and columns. While a table-based structure appears to be what is
34 expressed in the preferred embodiment, see 3:48 (noting that the

1 preferred embodiment uses "relational databases" (discussed below
2 in section entitled "Miscellaneous Terms"); 9:13-14 (noting use of
3 "transactions database table" and "transactions operations table"
4 in preferred embodiment); 9:28 (section describing "Attribute
5 Table"); 9:67 (section describing "User Attribute Sent Table), the
6 specification also expressly states that the "invention is not
7 limited . . . to . . . the use of any particular . . . database,"
8 3:49-51, and it further discloses the use of Extensible Markup
9 Language (XML) as an alternative method of storing user
10 information. 21:13-67 - 22:1-19.

11 Accordingly, while the following discussion examines the claim
12 terms at issue in this "user information database" function in the
13 context of the preferred embodiment, I recognize that the claim
14 terms are not limited to that embodiment both by the express
15 statements in the written description and under general precepts of
16 claim construction law. CVI/Beta Ventures, 112 F.3d at 1158 ("the
17 claims of a patent are not limited by preferred embodiments.").

18 1. "Database"

19 Defendant proposes the following construction: "an organized
20 collection of information that can be searched, retrieved, changed,
21 and sorted using a collection of programs known as a database
22 management system." Plaintiff proposes: "an organized collection
23 of information that can be searched, retrieved, changed, and sorted
24 using software." The point of contention is in whether the
25 database uses "a collection of programs known as a database
26 management system" or uses "software."

27 Defendant's proposal is the definition of "database" given in
28 the 1995 edition of the Dictionary of Computer Words 61 (1995 rev.

1 ed.) (relevant page found in Exh. B to Deft's Op. Cl. Constr.
2 Brief). Defendant contends that the '278 patent specification
3 does not indicate that the term "database" is used in any way other
4 than this ordinary technical meaning.

5 Plaintiff argues against defendant's "database management
6 system" limitation as unduly narrow. Plaintiff notes that the
7 specification states that information can be stored in "tables" or
8 in "XML files." 9:29-10:40, 21:14-19. Plaintiff further notes
9 that while a database management system is often associated with
10 accessing data stored in "tables," persons in the field and skilled
11 in the art might not refer to the software that works with XML
12 files as a "database management system." Accordingly, plaintiff
13 argues, the claim language should not be limited to a "database
14 management system."

15 I agree with plaintiff. From the written specification, the
16 parties' briefing, the expert declarations, and the arguments
17 presented in the case, it appears that one skilled in the art of
18 database systems would initially understand the ordinary, customary
19 use of the term "database" to refer to tables. But, the written
20 specification, the briefing, the expert declarations, and the
21 arguments presented in the case also show that XML is at least one
22 other "format" available in which to store data. To avoid limiting
23 the term "database" to the concept of storage of data in tables, I
24 recommend rejecting defendant's proposed construction with its
25 inclusion of "database management system" which one of ordinary
26 skill in the art could use to infer that the database at issue in
27 the patent is restricted to one using tables. Thus, I recommend
28 that "database" be construed as "an organized collection of

1 information that can be searched, retrieved, changed, and sorted
2 using software."

3 2. "Database Field Structure"

4 Defendant proposes this construction: "the structure of
5 database fields, i.e. relations and the attributes or fields that
6 define the columns the relations contain." Plaintiff proposes:
7 "the grouping and organization of database fields."

8 To understand defendant's proposed construction, it is
9 necessary to define some of the terms defendant uses. According to
10 one authority, a "relation" is "a two-dimensional table in which
11 data are arranged." Hector Garcia-Molina, et al., Database Systems
12 - The Complete Book 61-62 (2002) (relevant page found in Exh. B to
13 Deft's Op. Brief). An "attribute" is a name describing the meaning
14 of an entry in a column of a relation. Id. at p. 62 (showing
15 diagram of two-dimensional table with headings for four columns and
16 noting that the "attribute describes the meaning of entries in the
17 column below."). In the context of the patents in suit, an
18 attribute in a two-dimensional table could be something like "first
19 name," or "street address" or "user identification."

20 A "field" is the portion of the database that stores a data
21 value for a particular attribute. See Pltf's Initial Cl. Constr.
22 Brief at pp. 9-10. Another definition for field is "a space
23 reserved for a specified piece of information in a data record."
24 Bryan Pfaffenberger, Ph.D., Que's Computer & Internet Dictionary
25 133 (6th ed. 1995) (relevant page found in Exh. B. to Deft's Op.
26 Cl. Constr. Brief). In this sense, a "field" refers to the
27 location in the database in which a particular type of data is
28 stored. See Pltf's Exh. 1 to Sept. 9, 2004 Oral Arg. at p. 4

1 (Claim Construction Statement showing construction of "field" as "a
2 location in a record in which a particular type of data is stored.
3 For example, EMPLOYEE-RECORD might contain fields to store Last-
4 Name, First-Name, etc.").

5 With these definitions, defendant's proposed construction can
6 be read as: "the structure of database fields, i.e., tables and
7 the attributes or spaces that define the columns the tables
8 contain." One of the problems with defendant's proposed
9 construction is its reliance on technical terms to define the claim
10 phrase "database field structure." Defendant's proposal requires
11 several additional definitions or interpretations to be understood,
12 unnecessarily complicating the claim construction.

13 The more fundamental problem, however, is that once the
14 technical terms used by defendant are defined, it is obvious that
15 defendant's proposed construction limits the database field
16 structure to a structure based on tables. As explained above, the
17 patent's preferred embodiment of "database" may be tables, but it
18 is error to so limit it.

19 The meaning of "database field structure" is not apparent from
20 the claims themselves. To the extent the claims themselves give
21 some definition to the term, it is limited to the modifying phrase
22 immediately following "database field structure" which reads
23 "defined by multiple database fields[.]" Thus, the claims disclose
24 only that the "database field structure," whatever it is, must have
25 "multiple database fields." Defendant represents that there is no
26 mention in any part of the specification of "database field
27 structure." Plaintiff does not dispute this representation and my
28 independent review of the specification has revealed no reference

1 to the exact term. The only relevant specification reference I
2 found was to the following similar phrase: "As described in more
3 detail below, information about the applicants is maintained as a
4 set of attributes, each attribute corresponding to database
5 fields." 7:29-31.

6 Given the lack of information in the claims themselves and in
7 the specification, defendant relies on testimony from its expert
8 Jeffrey Ullman, Ph.D., who explains that although "database field
9 structure" is not a term that would be readily recognized by one of
10 ordinary skill in the art of database systems, such a person would
11 understand the phrase to refer to a "specification of the fields
12 used in some single relation or file of records." Aug. 15, 2004
13 Ullman Declr. at ¶ 7. By referring to "relation," Ullman's
14 explanation, which provides the foundation for defendant's proposed
15 construction, inappropriately restricts the definition of "database
16 field structure" to tables.

17 Consequently, I recommend that the phrase "database field
18 structure" be interpreted to mean "the grouping and organization of
19 database fields" with the understanding that "database field"
20 refers to "the space reserved in the database for storage of a
21 particular type of data."

22 3. "Defined by Multiple Database Fields"

23 Defendant proposes that this phrase be interpreted as "a set
24 of attributes of a single relation intended to hold information
25 about the applicants or users, as the case may be." As indicated
26 above, the phrase "defined by multiple database fields," modifies
27 it predecessor phrase "database field structure." Defendant
28 construes "database fields" as the attributes of a single two-

1 dimensional table. Based on this reasoning, defendant contends
2 that one skilled in the art would understand the phrase "defined by
3 multiple database fields" to refer to the structure or schema of a
4 table and not to the structure or schema of the database itself.
5 Defendant uses "applicants or users" because claims 1 and 32 refer
6 to the storage of application information and claim 12 refers to
7 the storage of user information.

8 As noted above, while the specification reveals the use of a
9 table-based database, it does not limit the type of database to one
10 using a single table or multiple tables. As seen in plaintiff's
11 September 9, 2004 oral argument presentation, there are several
12 different database structures familiar to those skilled in the art.
13 Pltf's Exh. 2 to Sept. 9, 2004 Or. Arg. at pp. 21-23. The patent
14 claim language and specification disclose an invention which may
15 employ any number of database structures to satisfy the "storing"
16 claim limitation.

17 Defendant's proposal would limit the claim language to the
18 preferred embodiment which describes the use of a three-column
19 database structure headed by fields for "user identification,"
20 "attribute identification," and "data value." Id. at p. 24; see
21 also Pltf's Exh. 5 to Oct. 6, 2004 Or. Arg. at pp. 9, 15 (showing
22 preferred embodiment as single two-dimensional table with columns
23 for "applicant identifier," "characteristic identifier," and
24 "value"). For the reasons discussed above, a construction limiting
25 the term to the preferred embodiment is unduly narrow and is
26 contradicted by the specification's express disclosure that a
27 table-based database is not the only method of storing user
28 information data.

1 Thus, I recommend construing "defined by multiple database
 2 fields" as "multiple spaces for the storage of multiple types of
 3 data." Accordingly, the entire claim phrase "database field
 4 structure defined by multiple database fields" would mean "the
 5 grouping and organization of multiple spaces in the database
 6 reserved for the storage of particular types of data."

7 4. "Multiple Records and Each Record
 8 Capable of Storing Information
 9 Corresponding to Each of the
 10 Database Fields"

11 Defendant argues that "multiple records" means "the rows of a
 12 single relation" and that "record" in the phrase "each record
 13 capable of storing information corresponding to each of the
 14 database fields," means "a complete unit of related data items
 15 stored in named data fields." Defendant's proposals are based on
 16 the following definition of "record":

17 In a database management program, a complete unit of
 18 related data items stored in named data fields. In a
 19 database, data record is synonymous with row.

20 A data record contains all the information related to the
 21 item the database is tracking. Most programs display
 22 data records in two ways: as data-entry forms and as
 23 data tables. In a table-oriented relational database
 24 management system, the data records are displayed as
 25 horizontal rows and each data field is a column.

26 Que's Computer & Internet Dictionary 124 (found in Exh. B to Deft's
 27 Op. Brief).

28 While it may not be readily apparent from defendant's proposed
 29 construction of "record," the underpinning of defendant's
 30 interpretation is that a "record" is limited to one "row" of a
 31 single two-dimensional table. Thus, "multiple records" means
 32 multiple rows of such a table.

33 In contrast, plaintiff construes "record" as a "collection of

1 related data treated as a unit." Plaintiff explains that in the
2 context of online admissions applications, a record might consist
3 of all the data for a particular applicant's application such as
4 name, address, high school attended, etc. Plaintiff contends that
5 this application data may be organized in several different ways in
6 a database with each carrying a different concept of "record":

7 (1) as multiple tables, with different tables storing
8 different parts of the data, all tables being linked together by
9 the applicant's identification number or some other linking
10 principle. In that case, the "record" is the collection of linked
11 data. See Pltf's Exh. 5 to Oct. 6, 2004 Or. Arg. at p. 11.

12 (2) all data for a single applicant are stored in a single row
13 of a single table. In that case, the "record" is the data on that
14 row. Id. at p. 7.

15 (3) as multiple rows of a single table, in which case the
16 rows, together, would constitute the "record." Id. at pp. 9, 15.

17 (4) stored as a related set of XML data, in which case a
18 record is the set of values that are linked to a "document."

19 Because, plaintiff's argument goes, some of the various
20 database structures contemplated by the patent carry a meaning of
21 "record" that encompasses more than one "row," or, in the case of
22 XML data, no "row" at all, defendant's proposed construction of
23 "multiple records," which is premised on its definition of "record"
24 as a single row of a two-dimensional table, must be rejected. And,
25 plaintiff continues, its proposal is superior because it captures
26 all of the possible concepts of "record" suggested by the various
27 database structures plaintiff describes.

28 Plaintiff contends that its invention encompasses all of the

1 database structures it describes and that its construction of
2 "record" is broad enough to take on different meanings of "record"
3 in different steps of the claims. For example, in a multiple table
4 model, id. at p. 11, or a model expressed by the preferred
5 embodiment where there is one table with three columns and each row
6 contains a user identification, an attribute identifier, and a
7 value, the "record," according to plaintiff, is a collection of all
8 of the rows containing information about a single applicant.
9 Because each row in the multiple table model or in the three-column
10 structure described in the preferred embodiment contains
11 information about one of the applicant's attributes, the "record"
12 should be thought of as all of those rows put together.

13 In support of this concept, plaintiff cites to a particular
14 part of the specification. In describing a "User Attribute Sent
15 Table," the specification refers to the previously described "User
16 Attribute Table," which stores the values assigned to attributes
17 for individual applicants. 9:45-46. The "User Attribute Table" is
18 configured, in the preferred embodiment, as a single table with
19 three columns, one for user identification, one for attribute
20 identification number, and one for data value.⁴ 9:45-48. Each row
21 of the table contains the information related to one attribute for
22 one applicant.

23 The "User Attribute Sent Table," rather than storing the user
24 information by attribute, stores the information contained in a

25
26 ⁴ The preferred embodiment actually discloses four columns
27 with the additional column for attribute identification number
28 sequence which would be used to assign a relative sequence to the
attributes. Because the visual aides shown by the parties omit
that fourth column, I do not use it here.

1 completed application as a "snapshot of the completed application."

2 10:1-5. The specification further provides that:

3 [t]he structure of the User Attribute Sent Table is very
4 similar to that of the User Attribute Table. The primary
5 key of the User Attribute Table is a user identifier (the
6 users log-on name), whereas the primary key of the User
7 Attribute Sent Table is a Transaction Identifier, which
8 identifies a unique combination of user, application, and
9 application terms. Thus, there can be multiple records
10 for a single user in the User Attribute Sent Table if the
11 user has submitted multiple applications or the same
12 application for different application terms.

13 10:5-14 (emphasis added). I understand plaintiff's argument to be
14 that (1) this description of the "User Attribute Sent Table"
15 suggests that multiple records equates with multiple applications;
16 (2) one application contains more than one attribute; (3) the
17 structure of the User Attribute Table requires multiple rows for
18 multiple attributes; (4) the User Attribute Sent Table, because it
19 is the same or similar to the User Attribute Table, would also
20 store its attributes on multiple rows of the table; and (5)
21 therefore, the User Attribute Table's reference to "multiple
22 records" implies that "record" consists of the collection of
23 information from several rows related to one applicant.

24 I disagree with plaintiff that this portion of the
25 specification supports its construction of "record" as all of the
26 information related to one applicant. Rather, although the
27 specification indicates that the User Attribute Sent Table uses a
28 similar structure to that described in connection with the User
Attribute Table, meaning a single two-dimensional table with
columns and rows, it does not suggest that each "record" comprises
multiple rows of information related to one applicant. In the User
Attribute Sent Table, it appears possible that a "record" is a

1 single row. Given that the User Attribute Sent Table apparently
2 stores user information as it appears in a single application,
3 each row could include just the transaction identifier and all of
4 the information contained in one application. Thus, one row is one
5 completed application containing all of the user attributes sent.
6 As such, there would be "multiple records" for "multiple
7 applications" with "record" referring to one "row." Thus, the
8 quoted portion of the specification does not confirm that the
9 proper interpretation of "record" in the context of the storing
10 step, means all of the information from all rows relating to one
11 applicant.

12 The other problem with plaintiff's argument is that to satisfy
13 additional claim limitations, plaintiff must offer a different
14 interpretation of "record." This is contrary to claim construction
15 standards which ordinarily require the same term in a claim to be
16 interpreted consistently. Omega Engineering, 334 F.3d at 1334.

17 The automatically storing step provides, in relevant part,
18 that the invention

19 automatically stor[es] the applicant information entered
20 into the second form data fields into the database by
21 adding new records to the database, the automatic storing
of the applicant information not altering the database
field structure . . .

22 23:5-9; see also 25:16-10; 26:25-29. Because this step addresses
23 an applicant's second application, the applicant already has user
24 information stored in the database. If "record" is defined as all
25 of the information pertaining to one applicant, it does not fit
26 within this claim step because the invention would not be adding a
27 "new record" for the applicant. An old record, e.g. all of the
28 information pertaining to one applicant, already exists. The only

1 interpretation of "record" that satisfies this claim limitation is
2 one that considers "record" to be a single "row," at least in the
3 table-based data storage model.

4 Given this problem, plaintiff argued at the October 6, 2004
5 oral argument, that "record" must be interpreted in two different
6 ways in claim 1 of the '278 patent. It must initially be
7 considered as all of the information pertaining to one applicant
8 for the first storing step, but then only as a single row for the
9 automatically storing step. I recognize that plaintiff's proposed
10 construction for "record" is broad enough to encompass both
11 meanings because different groupings of "related data" can each be
12 thought of as a "unit," but I cannot accept that even within the
13 preferred embodiment's three-column two dimensional table,
14 plaintiff must rely on two different meanings of the term "record."
15 I conclude that this is inherently inconsistent with basic precepts
16 of claim construction law.

17 On the other hand, defendant's premise that a "record" is a
18 single row works with all steps of the preferred embodiment, as
19 well as with a structure using multiple tables, and with XML. With
20 the preferred embodiment, a "record," when considered a "row," is
21 consistent with the use of "record" in both the first storing step
22 as well as the automatic storing step which refers to the
23 information from the second application.

24 In the storing step, the database includes "multiple records,
25 each record capable of storing information corresponding to each of
26 the database fields." In the three-column table expressed by the
27 preferred embodiment, there are multiple rows, and thus, multiple
28 records, and each row is capable of storing information

1 corresponding to each of the database fields.

2 In the automatic storing step, the invention stores the
3 applicant information entered in the second application's data
4 fields in the database by adding new records to the database. With
5 record meaning row, this limitation is easily satisfied by adding
6 new rows to the database. This makes sense in that in the
7 preferred embodiment, each attribute receives its own row in the
8 three-column structure. With the first application storage of
9 information expressed in the storage step, the applicant will have
10 several rows stored in a table (again, this is in the context of
11 the preferred embodiment), each row corresponding to a particular
12 attribute. With record meaning row, the new attributes from the
13 second application, e.g. the attributes not part of the first
14 application, will be stored as a new record, that is, a new row.

15 Because defendant's proposal for "multiple records" ("the rows
16 of a single relation") implies that a record is a row in the
17 context of a table-based database structure, and such a
18 construction is consistent with the use of "record" in the storing
19 claim limitation as well as the use of the "record" in the
20 automatic storing claim limitation, in the context of the preferred
21 embodiment, I recommend concluding that in the preferred
22 embodiment, record should be understood as a single row in the
23 table.

24 I reject, however, defendant's actual proposal for "multiple
25 records" as "the rows of a single relation" because, again, this
26 proposal restricts the term to the two-dimensional table expressed
27 in the preferred embodiment which is inconsistent with the
28 specification and claim construction standards. Rather, I

1 recommend construing "record" to be "a collection of related data
2 items stored in named data fields" and "multiple records" to mean
3 "multiple collections of related data items stored in named data
4 fields." In the preferred embodiment, this construction includes
5 the understanding that one record is one row. In other
6 embodiments, however, the restriction of record to one row may not
7 be workable. For example, with XML, there is no traditional "row."

8 As seen in plaintiff's hearing exhibits, there are data items
9 and data fields in a database structure using XML. Pltf's Exh. 5
10 to Oct. 6, 2004 Or. Arg. at p. 14. The data fields are any of the
11 spaces where information will be stored, such as the spaces between
12 the < > symbols or the space between the > < symbols. Id. The
13 data items are, for example "<username>" and "872." Id. A
14 collection of related data items stored in named data fields could
15 be "<username>" and "872." That would comprise the record in the
16 XML system.

17 This understanding meets both the storing and automatically
18 storing claim limitations. Each record is capable of storing
19 information related to each of the database fields and a new record
20 is added to the database from the second form data fields.
21 Accordingly, I recommend that "record" be construed as "a
22 collection of related data items stored in named data fields."

23 5. "Data Element"

24 Dependent claim 11 of the '278 patent provides for

25 [t]he method of claim 1 in which storing the posted
26 applicant information in a database having a database
27 field structure defined by multiple database fields
28 includes parsing the applicant information . . . into
data elements, the data elements being separately stored
and identified, thereby allowing the data elements to be
separately retrieved and rearranged in subsequent

1 applications.

2 23:66-67 - 24:1-5. Defendant proposes the following construction
3 of "data element": "the smallest, indivisible unit of data stored
4 in the database, which in the context of a relation, is a single
5 component of a row, corresponding to a particular attribute."

6 Defendant contends that based on the specification, "data
7 element" should be understood to refer to the smallest, indivisible
8 unit of data stored in the database. The specification notes that
9 "[t]o avoid having applicants enter data more than once to
10 accommodate changes in format, the information is preferably stored
11 in simpler data elements, and then combined during second stage
12 validation into the format requested by the institution." 15:36-
13 40. Additionally, each "data element" maps to a unique attribute
14 having "a unique identifier or alias." 7:39-49. Defendant argues
15 that in the field of database design, one would understand a "data
16 element" to mean a single component of a row, corresponding to a
17 particular attribute.

18 Plaintiff proposes the following construction: "the smallest
19 unit of data defined for use by a system. By way of example, a
20 form may provide a single field for 'full name,' which can be
21 defined to contain the data elements 'first name,' 'middle name,'
22 and 'last name.'" I recommend the adoption of plaintiff's
23 proposal. Defendant's proposal expresses the construction in the
24 context of the preferred embodiment two-dimensional table.
25 Plaintiff's proposal is more easily adapted to other database
26 structures.

27 / / /

28 / / /

1 6. "By Adding New Records to the
2 Database Without Altering the
2 Database Field Structure"

3 As stated above, this is part of the "automatic storing"
4 function related to information obtained from the second
5 application, seen in independent claims 1, 21, and 32 of the '278
6 patent. 23:5-9; 25:16-20; 26:25-29. Defendant proposes that this
7 claim language be construed to mean "the addition of new records,
8 or rows, to a relation does not alter the structure or schema of
9 the relation."

10 I recommend that this claim phrase not be further construed.
11 First, defendant again ties its proposal to a two-dimensional
12 database structure. For the reasons previously explained, this is
13 inappropriate. Second, I have already construed the individual
14 terms "record," "database," and "database field structure." The
15 only additional words are "adding," "new," "without," and
16 "altering," none of which are used in any sense but their ordinary,
17 customary meaning. Accordingly, there is no need to further
18 construe this phrase.

19 7. "Extensible"

20 Defendant also proposes to construe the word extensible which
21 appears at the end of the "automatic storing" function. The entire
22 claim phrase reads:

23 automatically storing the applicant information entered
24 into the second form data fields into the database by
25 adding new records to the database, the automatic storing
26 of the applicant information not altering the database
27 field structure, thereby allowing new form data fields
28 corresponding to applicant information not previously
requested to be added to an application form without
requiring alterations of existing application forms or of
programs that access the database, whereby customized
applications to different institutions share data through
common, extensible data storage.

1 23:5-14; see also 25:16-23; 26:25-33.

2 Defendant proposes that "extensible" be construed as having
3 the ordinary and customary meaning of "capable of being extended."
4 Defendant contends this is supported by the specification. 7:31-37
5 ("If an institution chooses to include in its application a request
6 for an applicant attribute that does not correspond to one included
7 in the database, the database is easily extended to include the new
8 applicant attributes without reprogramming the forms engine.").
9 Defendant contends that construction is necessary, despite the term
10 possessing its ordinary and customary meaning, to make clear that
11 the term does not refer to a technical meaning of "extensible" in
12 the field of database design. As defendant explains, at least one
13 technical Internet dictionary refers to an "extensible database" as
14 a database management system that allows access to data from remote
15 sources as if the remote data were part of that database. Deft's
16 Op. Cl. Constr. Brief at p. 17 n.11 (citing to
17 www.hyperdictionary.com).

18 I agree with defendant. As explained above, ordinarily, when
19 a claim term is used only in its common, customary sense with no
20 particular technical or scientific meaning, it is not necessary to
21 construe the claim. However, here, to prevent the jury from
22 mistakenly assuming, or the parties arguing, that in this context
23 "extensible" refers to a technical concept in the field of database
24 structuring, it is necessary to construe the claim. I recommend
25 adopting defendant's construction.

26 C. No Rewriting of Code Function

27 The function at issue here is found in claims 1, 21, and 32 of
28 the '278 patent. The relevant language is as follows:

1 automatically storing the applicant information entered
 2 into the second form data fields into the database by
 3 adding new records to the database, the automatic storing
 4 of the applicant information not altering the database
 5 field structure, thereby allowing new form data fields
corresponding to applicant information not previously
requested to be added to an application form without
requiring alterations of existing application forms or of
programs that access the database, whereby customized
 6 applications to different institutions share data through
 common, extensible data storage.

7 23:5-14 (claim 1) (emphasis added); see also 25:20-23 (similar
 8 language in claim 21); 26:25-33 (similar language in claim 32).

9 Also relevant to this function is language from dependent
 10 claim 2 of the '278 patent:

11 The method of claim 1 in which creating a first
 12 application form customized in accordance with the
 13 preferences of the first institution includes generating
 14 a first application in accordance with stored application
 15 description information and in which a modified first
 16 application can be generated by modifying the application
 17 description information without rewriting the computer
program that creates the first application.

18 23:15-22 (emphasis added). Additionally, language from dependent
 19 claim 34 is relevant:

20 The method of claim 32 in which providing a database for
 21 storing information includes providing a database that is
 22 extensible without reprogramming the program for
generating the customized application, thereby allowing
 23 an institution to readily request and store new
 24 information previously stored.

25 26:38-43 (emphasis added).

26 Defendant proposes constructions for the following terms
 27 appearing in these claims: (1) "alterations"; (2) "without
 28 requiring alterations of existing application forms or programs
 29 that access the database"; (3) "without rewriting the computer
 30 program that creates the first application"; and (4) "without
 31 reprogramming the program for generating the customized
 32 application[.]"

1 1. "Alterations"

2 Defendant proposes that "alterations" be construed as "making
3 different in some particular, as in size, style, course, or the
4 like; modification." Defendant bases this construction on the
5 definition of "alter" from Webster's Encyclopedic Unabridged
6 Dictionary of the English Language 43 (1994). Plaintiff argues
7 that the term "alterations" is used in its plain, ordinary meaning
8 and needs no construction. I agree with plaintiff.

9 2. "Without Requiring Alterations of
10 Existing Application Forms or of
 Programs that Access the Database"

11 Defendant seeks separate constructions for "without requiring
12 alterations of existing applications" and "without requiring
13 alterations of . . . programs that access the database." As to the
14 former, defendant proposes the following construction: "no
15 programs for creating forms have to be rewritten, revised or
16 reprogrammed and no forms have to be recreated or regenerated from
17 rewritten or revised programs in order to add new form data fields
18 to a form." For the latter, defendant proposes the following
19 construction: "no program such as the forms engine that sends and
20 retrieves user data to and from a database needs to be rewritten or
21 reprogrammed in order to add new form data fields to a form."

22 I agree with defendant that the prosecution history shows that
23 the patent applicants distinguished their invention from the prior
24 art by describing a system with a "flexible forms engine that can
25 be readily extended to handle new data fields without reprogramming
26 the database or recreating existing forms." Exh. A to Def't's Op.
27 Cl. Constr. Brief. Based on the distinction, the '278 patent
28 disclosed an invention in which existing forms do not have to be

1 altered because the forms themselves are not "hard-coded" programs
2 that have to be rewritten. See 1:30-34 (noting that in prior
3 incarnations of internet application forms, "if the institution
4 wishes to change the application form, the institution must
5 typically revise the source code that creates the application form,
6 thereby making changes to the application form expensive and
7 inconvenient.").

8 The problem with defendant's proposals, however, is that I see
9 no reason not to apply my previous construction of the phrase at
10 issue. In the ApplyYourself case, I construed the following
11 phrase: "thereby allowing new form data fields corresponding to
12 applicant information not previously requested to be added to an
13 application form without requiring alterations of existing
14 application forms or of programs that access the database[.]" The
15 construction I gave the phrase was: "[n]ew form data fields
16 corresponding to application information not previously requested
17 could be added to an application form without altering existing
18 application forms or programs that access the database." I also
19 separately construed the limited phrase "programs that access the
20 database," as "the computer software programs that retrieve user
21 data from the database and send user data to the database." Dec.
22 19, 2002 Op. at pp. 34-35.

23 The previous constructions make clear that existing
24 application forms and programs that access the database are not
25 altered when new form data fields are added to the application
26 form. This construction addresses the distinction made over the
27 prior art in the prosecution history. Furthermore, defendant's
28 proposed construction is cumbersome and unnecessarily wordy. The

1 claim language itself is fairly straightforward and the prior
2 constructions adequately define the claim limitations.

3 3. "Without Rewriting the Computer
4 Program That Creates the First
 Application"

5 This claim phrase is taken from dependent claim 2 of the '278
6 patent, quoted above. Defendant proposes the following
7 construction: "the code for the forms engine program does not have
8 to be rewritten or reprogrammed because one has only to change the
9 application description information that the forms engine uses to
10 generate the application form."

11 Defendant cites to the specification of the '278 patent in
12 support of its argument that "the computer program that creates the
13 first application" is the forms engine program described elsewhere.
14 The relevant excerpt is:

15 [t]he applicant database can be extended to include new
16 attributes without making any changes to the forms engine
17 program or to the application files of institutions that
18 chose not to include the new data. The forms engine
19 automatically uses the application data file to produce
20 the requested application in HTML format for display on
the applicant's browser. The application description
file can be easily modified, for example, to change
labels or to add additional fields. The appearance of
the application for each institution can be changed by
changing its application description file, without
reprogramming the forms engine.

21 8:60-67 - 9:1-3.

22 Plaintiff contends that the phrase "without rewriting the
23 computer program that creates the first application" need not be
24 construed because it is not imbued with any scientific or technical
25 meaning and all of the words in the phrase are used in their plain,
26 ordinary, everyday sense. Plaintiff also disputes that aspect of
27 defendant's construction that essentially equates the "computer
28

1 program" with the "forms engine program."

2 Plaintiff contends that defendant inappropriately imports
3 language from the specification into the proposed claim
4 construction to create a limitation not seen in the claim language
5 itself. Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 904
6 (Fed. Cir. 2004) (noting impropriety of reading a limitation from
7 the specification into the claims). Reference to the specification
8 is not an improper claim construction tool, because it is
9 permissible to read the claims in light of the specification. Id.
10 Thus, to the extent the specification is used as a way to confirm
11 the apparent meaning of the claim language, the use of the
12 specification is acceptable. Here, the use of the specification
13 only confirms the claim language's obvious meaning that "computer
14 program" means the forms engine program.

15 I start with the language of claim 2 of the '278 patent,
16 quoted in its entirety:

17 The method of claim 1 in which creating a first
18 application form customized in accordance with the
19 preferences of the first institution includes generating
20 a first application in accordance with stored application
description information and in which a modified first
application can be generated by modifying the application
description information without rewriting the computer
program that creates the first application.

21 23:16-23. The "computer program that creates the first
22 application" clearly refers to the first part of this claim which
23 describes the creation of the first application form which has been
24 customized in accordance with the preferences of the first
25 institution. This in turn refers to a method expressed in claim 1.

26 In claim 1, the language provides that the method allows for
27 the creation of, in response to a request from an applicant for an
28

1 application to a first institution, a first application form
2 customized in accordance with the preferences of the first
3 institution. 22:37-40.

4 Because claim 1 discloses no further information regarding
5 what part of the system actually creates the application to a first
6 institution, it is necessary to examine claim 21 which describes
7 the system used for creating and processing the forms previously
8 disclosed in independent claim 1 and subsequent dependent claims.
9 Claim 21 discloses a system which relies on a "forms engine
10 program" to generate a form from the form description information.
11 Read together, claims 21, 1, and 2 provide for the creation, by a
12 forms engine program, of a first application form customized in
13 accordance with the preferences of the first institution. Thus,
14 the claim language itself supports equating the meaning of
15 "computer program" with "forms engine program."

16 Accordingly, while I conclude that the remaining words in this
17 phrase do not need construction because the words "without,"
18 "rewriting," and "the first application" are used only in their
19 non-technical ordinary sense, I agree with defendant that "computer
20 program" should be construed to mean forms engine program. I
21 recognize that recommending a construction that incorporates
22 another construed term will require the cross-referencing which I
23 described above as unnecessarily complicating a construction.
24 However, in this instance, the construction which relies on "forms
25 engine program" is required because unlike the other constructions
26 discussed above, the jury could easily apply the wrong meaning to
27 the disputed phrase in this instance. Therefore, I recommend that
28 the phrase "without rewriting the computer program that creates the

1 first application" be construed as "without rewriting the forms
2 engine program that creates the first application."

3 4. "Without Reprogramming the Program
4 for Generating the Customized
4 Application"

5 This claim phrase is taken from dependent claim 34 of the '278
6 patent, quoted above. Defendant proposes the same construction for
7 this phrase as for the previous phrase: "the code for the forms
8 engine program does not have to be rewritten or reprogrammed
9 because one has only to change the application description
10 information that the forms engine uses to generate the application
11 form."

12 As with the previous phrase, defendant contends that the
13 "program for generating the customized application" must refer to
14 the forms engine program. In addition to the plain meaning of the
15 claim language, defendant notes that the specification of the '278
16 patent indicates that the database for storing user information can
17 be extended to include new user attributes that do not correspond
18 to ones already in the database and that this extension does not
19 require reprogramming the forms engine program. 7:29-35; 8:60-67-
20 9:1-3.

21 Claim 34 refers to the method of claim 32 which in turn,
22 discloses a method which includes generating a customized
23 application. Claim 34, however, does not itself disclose what
24 actually generates that customized form. Again, it is necessary to
25 examine claim 21 for that information. As discussed above, claim
26 21 discloses that the function is performed by the forms engine
27 program. Thus, I agree with defendant that the reference to "the
28 program for generating the customized application" in claim 34

1 refers to the forms engine program. This is confirmed by the
2 specification as indicated in the previous paragraph.

3 I recommend that the phrase "without reprogramming the program
4 for generating the customized application" be construed to mean
5 "without reprogramming the forms engine program for generating the
6 customized application."

7 D. Forms Processing Function

8 This function is expressed by the following language in claim
9 1 of the '042 patent:

10 processing by the third party forms servicer the user
11 information in accordance with the preferences of the
12 institution of higher education to which the form is
13 directed to make the user information available to the
14 institution in a format specified by the institution, the
15 third party forms servicer thereby providing to public
users customized forms identified with institution[s] of
higher education and providing to the institutions
custom-formatted data, while relieving the institution of
the administrative burden of processing forms and
payments.

16 35:34-44; see also 36:49-57 (nearly identical language in claim
17 16); 38:1-9 (nearly identical language in claim 32).

18 In addition, in the preamble to claim 1, the patent states:

19 A method of processing over a computer network forms
20 directed by multiple public forms users to multiple
21 institutions of higher education, the forms being
22 processed by a third party forms servicer that is neither
one of the institutions of higher education nor one of
the public forms users, . . .

23 35:2-6. This language is more or less repeated in the preambles to
24 the other independent claims of the '042 patent. 36:32-36 (claim
25 16); 37:46-50 (claim 32); 38:38-42 (claim 38).

26 Defendant proposes constructions for the following terms: (1)
27 processing; (2) providing; (3) by the third party forms servicer;
28 and (4) in a format specified by the institution.

1 One of the most contentious issues in the ApplyYourself case
2 was the construction of the first part of the language quoted above
3 from claim 1:

4 processing by a third party forms servicer the user
5 information in accordance with the preferences of the
6 institution of higher education to which the form is
7 directed to make the information available to the
8 institution in a format specified by the institution.

9 I first construed this in the July 2003 summary judgment
10 opinion, then in a subsequent August 20, 2003 Order on plaintiff's
11 motion for reconsideration, and then again during trial in a
12 September 3, 2003 Opinion. I finally instructed the jury that the
13 entire phrase was to be construed as follows:

14 User information provided to the institution by the
15 servicer is available in an unlimited number of formats
16 and is processed wholly by the third party forms servicer
17 and not the institution. That is, the function is one of
18 providing limitless formats for the transfer of user
19 information from the servicer to the institution with no
20 additional formatting or mapping performed by the
21 institution.

22 This construction does not preclude formatting, mapping,
23 or other manipulation of the user information data by the
24 institution once it is received by the institution in a
25 format the institution specified.

26 Any reference to "unlimited number of formats" and
27 "limitless formats" should be interpreted to mean that
28 the third party forms servicer provides the user
information to the institution in any format specified by
the institution.

29 "in a format specified by the institution" means in any
30 file format, and it may include any other type of format,
31 specified by the institution.

32 Final Jury Instructions at p. 14 (dkt #323). This claim
33 construction is one of several issues from the ApplyYourself case
34 currently on appeal before the Federal Circuit. Keeping this prior
35 construction in mind, I turn to defendant's proposals.

36 / / /

1 1. "Processing"

2 Defendant first contends that references to "processing" in
3 the preambles to the independent claims to "processing over a
4 computer network forms directed by . . ." and "the forms being
5 processed by a third party forms servicer" should be construed to
6 mean processing of the user information captured by a form rather
7 than the form itself. I agree that the plain language of the
8 claims supports this interpretation.

9 Defendant next argues that as to processing user information,
10 the term "process" should mean "to subject to a special process or
11 treatment (as in the course of manufacture)." Then, defendant
12 continues, because the claim language refers to processing the user
13 information to make it available in a format specified by the
14 institution, the construction of "processing" must include a
15 reference to making the information available in a format specified
16 by the institution.

17 Thus, defendant argues that as it relates to forms,
18 "processing" includes the step of "subjecting the user information
19 to a special process or treatment so as to make it available to an
20 institution in a format specified by the institution."

21 I reject this proposal. Defendant's proposed construction
22 invites confusion by referring to "special process or treatment"
23 because such terms would themselves likely require additional
24 construction. Furthermore, I do not agree that the verb
25 "processing" must be construed by incorporating the phrase "making
26 it available to an institution in a format specified by the
27 institution." That limitation is obvious from the claim language
28 itself. While that may be the end result of the action of

1 "processing," it is not required as part of the construction of
2 "processing."

3 I have already construed the term "processing" in the context
4 of the electronic payment function. I see no need to adopt a
5 different construction here in the context of processing user
6 information. Nothing in the claim language or specification
7 indicates that the term carries different meanings in the two
8 separate functions. Moreover, as noted above, ordinarily the same
9 term in a claim is to be interpreted consistently. Omega
10 Engineering, 334 F.3d at 1334. Thus, I propose that "process" or
11 "processing" in the context of forms processing, be construed as
12 "the manipulation of data within a computer system."

13 2. "Providing"

14 Defendant suggests that the term "providing" in independent
15 claims 16, 32, and 38 of the '042 patent implies the "processing"
16 function expressly claimed in claim 1 because these other
17 independent claims call for the user information to be provided by
18 the third party forms servicer to the institution in a format
19 specified by the institution. Defendant states that the ordinary
20 definition of provide, from Merriam Webster's Collegiate Dictionary
21 940 (10th ed. 1994), means "to supply or make available."
22 Defendant contends that this definition is consistent with the
23 language of claim 1, stating that the processing step, which
24 defendant argues is implied by "providing" in the other independent
25 claims, is intended to "make the user information available to the
26 institution in a format specified by the institution." Thus,
27 defendant proposes that as it relates to user information,
28 "providing" means "to make available."

1 Plaintiff contends that because "provide" is used only in its
2 everyday, ordinary sense with no technical meaning having been
3 ascribed to it, no construction is required. I agree with
4 plaintiff.

5 3. "By the Third Party Forms Servicer"

6 The claims require the "processing" to be performed by the
7 "third party forms servicer." The preamble for each claim recites
8 that the "third party forms servicer" is "neither one of the
9 multiple institutions nor one of the public form users[.]" 35:5-6;
10 36:36-37; 37:49-50; 38:41-42.

11 Defendant argues that I must construe "third party forms
12 servicer" consistently throughout each claim because "the same word
13 appearing in the same claim should be interpreted consistently."
14 Digital Biometrics, 149 F.3d at 1345. Accordingly, defendant
15 proposes that I adopt the same construction for "third party forms
16 servicer," whether it be in the context of processing forms or
17 payments. In defendant's opinion, as discussed above, the third
18 party forms servicer which processes electronic payments is limited
19 to the business entity hosting the forms engine software. Thus,
20 according to defendant, the third party forms servicer which
21 processes forms must also be limited to that same business entity
22 hosting the forms engine software.

23 I do not dispute defendant's premise that the same word
24 appearing in the same claim should be interpreted consistently. I
25 believe that I have done that by referring to the "third party
26 forms servicer" as the business entity hosting the forms engine
27 software in both the electronic payment context and in the forms
28 processing context. My construction of "third party forms

1 servicer" as that entity remains constant throughout the claim.

2 What is different, however, is that the function of electronic
3 payment processing inherently requires the participation of an
4 outside entity in the process. As explained above, at a minimum,
5 financial institutions play a role in the processing function.
6 Thus, while "third party forms servicer" means the business entity
7 hosting the forms engine software, the function of processing of
8 electronic payment information requires the participation of the
9 third party forms servicer while contemplating the participation of
10 an additional party.

11 The forms processing function does not present the same issue.
12 There is no reason why the third party forms servicer cannot be the
13 exclusive processor of user information. Accordingly, the third
14 party forms servicer, when it comes to processing user information,
15 is the sole entity involved in the process.

16 Thus, I recommend that the term "third party forms servicer"
17 be construed to mean "the business entity hosting the forms engine
18 software" no matter which function (electronic payment or forms
19 processing) is being considered. However, I further recommend, as
20 discussed above, that the processing of electronic payments not be
21 limited to that entity while the processing of user information
22 should be limited to that entity. Additionally, as before, the
23 institution and the user/applicant are not involved in either
24 function.

25 4. "Format" and "In a Format Specified
26 by the Institution"

27 Given plaintiff's appeal of the prior claim construction of
28 these phrases in the ApplyYourself case, plaintiff requests I defer

1 claim construction of these phrases in this case pending the
2 resolution of that appeal by the Federal Circuit. Acceding to
3 plaintiff's request could unnecessarily prolong the length of this
4 case. The case schedule for this case has, hopefully, allowed time
5 for a decision from the Federal Circuit before trial. There is no
6 need to defer consideration of the construction here.

7 Defendant states that it does not take issue with my prior
8 construction. But, in the briefing, defendant appears to suggest
9 that I add additional language. Defendant states that the forms
10 processing steps, including the final step of processing the user
11 information to make it available to an institution in a format
12 specified by the institution, "must be construed as leaving nothing
13 that the institution would have to do by way of processing before
14 it can make use of the user information."

15 I reject the proposed construction because I think it adds
16 nothing to the previous construction and simply uses different
17 words to express the same meaning. When the claim limitation as I
18 have construed it, is met, there is, by definition, nothing that
19 the institution must do by way of processing before it can make use
20 of the user information. That is the whole point of providing it
21 in any format requested by the institution. The prior construction
22 gives a more complete explanation of the concepts expressed by the
23 claim limitation, including the concept of the institution not
24 having to do anything related to processing, while allowing for the
25 institution to choose to retain parts of the processing function if
26 it desires to do so.

27 E. No Administrative Burden Function

28 Independent claims 1, 16, 32, and 38 of the '042 patent refer

1 to "relieving the institution of the administrative burden of
2 processing forms and payments." 35:42-44; 36:55-57; 38:7-9; 38:60-
3 61. Defendant proposes constructions for: (1) "relieving"; (2)
4 "administrative burden"; and (3) the entire phrase "while relieving
5 the institution of the administrative burden of processing forms
6 and payments."

7 1. "Relieving"

8 Defendant argues that the addition of the "relieving" clause,
9 read in the context of the claims limitations, creates a limitation
10 on the nature and extent of the processing that a third party forms
11 servicer must do. Defendant contends that the third party forms
12 servicer must provide processing sufficient to eliminate the need
13 for the institution to engage in processing. Defendant accurately
14 notes that I have previously recognized that the clause creates a
15 limiting effect in the prior construction of the phrase "in a
16 format specified by the institution." Sept. 3, 2003 Opinion at p.
17 9.

18 Citing Merriam Webster's Collegiate Dictionary 988 (10th ed
19 1994) (def. 1(a)), defendant argues that "relieving" means "to free
20 from a burden." Based on this, and on defendant's contention that
21 this ordinary meaning is consistent with the patent specification,
22 defendant proposes to construe "relieving" as "freeing from a
23 burden."

24 Plaintiff objects to the implication that "freeing" is
25 synonymous with eliminating. Plaintiff cites the American Heritage
26 Dictionary for the proposition that the ordinary meaning of
27 "relieving" is to "lessen," not eliminate. Pltf's Resp. Brief at
28 p. 30 (citing American Heritage Dictionary 1474 (4th ed. 2000)

1 (defining "relieving" as: "To cause a lessening or alleviation
2 of."). Plaintiff argues that while relieving can include
3 eliminating or "freeing from a burden," relieving should not be
4 limited to that meaning. Plaintiff cites to Texas Digital, 308
5 F.3d at 1202, for the proposition that "if more than one dictionary
6 definition is consistent with the use of the words in the intrinsic
7 record, the claim terms may be construed to encompass all such
8 consistent meanings."

9 I conclude that defendant's proposal is more consistent with
10 the interpretation of "in a format requested by the institution"
11 than plaintiff's proposal. I start with the idea, as expressed in
12 the September 2, 2003 Opinion in the ApplyYourself case, that the
13 "thereby" clause containing the phrase "relieving the institution
14 of the administrative burden of processing forms and payments,"
15 "acts as a summary of the function of the claim [limitation] and
16 indicates that by providing the processed user information to the
17 institution as custom-formatted data in a format specified by the
18 institution, the claim will relieve the institution's burden of
19 processing forms." Sept. 3, 2003 Op. at p. 9. I noted that the
20 "thereby" clause was "critical to my construction" of the "in a
21 format requested by the institution" claim phrase because "it is
22 the relief of the burden of the institution that instruct[ed] my
23 reading of the term 'format.'" Id.

24 "Relieving," then, should properly be understood to mean the
25 elimination of anything the institution must do to use the data.
26 If there are limitations on the abilities of the third party forms
27 servicer to provide limitless file formats and thus, a limit on its
28 ability to provide the user information in a format specified by

1 the institution, then the burden of processing the user information
2 is not eliminated and thus, not relieved, because the institution
3 then must do some processing to make use of the data.

4 While the institution may choose to do any level of
5 "processing" whether electronic or physical, to the data received
6 from the third party forms servicer, it cannot be required to do so
7 by the inabilities of the third party forms servicer to provide the
8 data in the format requested by the institution. The "relieving"
9 claim term and the "in a format specified by the institution" claim
10 phrase, are, in effect, two sides of the same coin. "Relieving,"
11 when read in the context of the claim construction for the entire
12 "processing of user information" claim limitation, including the
13 phrase "in a format specified by the institution," means
14 eliminating.

15 This interpretation does not negate the part of the prior
16 construction of the "processing of user information" limitation
17 which provides that the construction "does not preclude formatting,
18 mapping, or other manipulation of the user information data by the
19 institution once it is received by the institution in a format the
20 institution specified." The construction assumes that the burden
21 on the institution of processing user information is eliminated
22 once it receives the user information in a format it specified.
23 The fact that the institution may choose to do additional
24 formatting, mapping, or manipulation after that point does not
25 suggest that the burden is not eliminated, or that by construing
26 "relieving" as eliminating is inconsistent with this
27 interpretation.

28 / / /

1 2. "Administrative Burden"

2 Defendant states that the term "administrative burden"
3 requires no formal definition, but then it proposes the following
4 construction: "the administrative tasks typically associated with
5 the processing of forms such as admissions applications and any
6 payments associated with the forms." I recommend that this term
7 not be construed as it is used in its ordinary, customary fashion
8 with no technical or scientific meaning revealed by the claims or
9 the specification.

10 3. "While Relieving the Institution of
11 the Administrative Burden of
12 Processing Forms and Payments"

13 Based on its constructions for "relieving" and "administrative
14 burden," defendant proposes the following construction for the
15 entire phrase at issue:

16 the institution is freed from the administrative burden
17 of processing the relevant forms and associated payments.
18 With respect to the processing of forms, the institution
19 must be able to receive the user or applicant information
20 in whatever file and other format it has specified, such
21 that no further formatting or mapping has to be done to
22 the data. With respect to the processing of payments,
23 the institution must be able to receive an electronic
24 payment credited to its account and matched to the form
25 with which the payment is associated so that the
26 institution is freed from the administrative burden of
27 handling any aspect of the payment process, from
28 verification of credit card numbers to settlement to
reconciliation.

Deft's Op. Brief at pp. A-3 - A-4.

I recommend that this construction not be adopted. I conclude
that given that the operative terms in the claim phrase have
already been construed or need no construction, any additional
construction is unnecessary.

1 G. Miscellaneous Terms

2 Defendant proposes constructions for two terms it refers to as
3 "miscellaneous terms": (1) metadata; and (2) relational database.

4 1. "Metadata"

5 The term metadata appears in claims 19, 20, 36, and 37 of the
6 '278 patent:

7 19. The method of claim 18 in which the metadata
8 includes validation rules for the data.

9 20. The method of claim 18 in which the metadata
10 specifies the sharing between applications or the
11 accessibility of the data.

12 36. The method of claim 32 in which the database stores
13 metadata describing the data.

14 37. The method of claim 36 in which the metadata
15 describes permissible values for the data and further
16 comprising comparing the applicant data in the completed
17 form data fields with the permissible values.

18 24:47-51; 26-47-52.

19 Defendant cites to the following definition of "metadata" from
20 the specification of the '278 patent: "Metadata, that is,
21 information that characterizes the applicant data is also stored."
22 2:27-28. Defendant argues that metadata may describe various
23 characteristics of the user attributes that are being stored in the
24 database. Defendant contends that these characteristics include
25 the properties of the fields and the relation in which the user
26 data are arranged. Based on these arguments, defendant offers the
27 following construction for "metadata": "information that describes
28 user data including the properties of the fields and the relation
in which user data are arranged."

Plaintiff takes issue with defendant's proposal. In contrast
to defendant's proposal, plaintiff offers the following:

1 "information that describes data." As plaintiff notes, the parties
2 agree that metadata is information that describes data.

3 Plaintiff opposes defendant's inclusion of "user data."
4 Plaintiff states that the limitation of "user data" is not in the
5 claim. Plaintiff indicates that the specification makes clear that
6 metadata can be used to describe parameters, such as validation
7 criteria for data, rather than describing user data. Plaintiff
8 cites to the following part of the specification:

9 Metadata, that is, information that characterizes the
10 applicant data is also stored. For example, in one
embodiment, an attribute table describes characteristics,
such as permissible values and accessibility to various
institution personnel, of applicant attribute data. In
another embodiment, such properties of the applicant
attributes are stored in XML files. Storing metadata
provides greater control over the data validation,
sharing between forms, grouping, and access.

14 2:30-37. Based on this reference, plaintiff argues that
15 defendant's restriction to user data is inconsistent with the
16 ordinary meaning and is contrary to the intrinsic evidence.
17 Furthermore, plaintiff contends that defendant's proposal that the
18 "user data" must also include "properties of the field" and "the
19 relation in which user data are arranged," is not required.

20 I agree with plaintiff. As to "user data," even claim 19
21 itself seems to contradict defendant's proposal by stating that the
22 "metadata includes validation rules for the data." Additionally,
23 the specification reference cited by plaintiff suggests that while
24 metadata indeed includes information characterizing the applicant
25 data, the "characteristics" include "permissible values" and
26 "accessibility to various institution personnel." These encompass
27 more than "user data." Thus, "metadata" it is not restricted to
28 "user data."

1 Another problem is defendant's references to "field" and
2 "relation" which suggest that "metadata" is information about data
3 as it exists in a two-dimensional table. For the reasons described
4 above, this is inconsistent with the patent's specification and
5 basic claim construction standards which caution against limiting
6 a claim term to its preferred embodiment. Accordingly, I recommend
7 that plaintiff's proposal for "metadata" be adopted.

8 2. "Relational Database"

9 The term appears in claims 17, 31, and 39 of the '278 patent:

10 17. The method of claim 1 in which the database includes
11 a relational database or XML data.

12 31. The system of claim 21 in which the first or second
13 data storage comprises one or more relational database
14 tables stored on a computer readable medium.

15 39. The method of claim 32 in which the database
16 includes a relational database.

17 24:43-44; 25:58-60; 26:56-57.

18 Defendant proposes the following construction for the term:
19 "a database organization method that links files together as
20 required." Plaintiff proposes the following construction: "a
21 database that is organized in a manner than can link tables or
22 records together as required."

23 Obviously, the two proposals are similar. Plaintiff argues
24 that its alternative uses the terminology "tables or records"
25 instead of "files" because that is grammatically consistent with
26 the claim language and is more accepted in the industry. I agree
27 with plaintiff and recommend that plaintiff's proposal be adopted.

28 H. Performance of Method Claims in Order Recited

29 Defendant argues that the method claims of both patents
30 (independent claims 1 and 32 of the '278 patent and independent

1 claims 1, 16, and 38 of the '042 patent), should be construed to
 2 require that the steps set forth be performed in the order in which
 3 they are recited. Plaintiff asserts that it would be
 4 technologically possible to achieve the purpose of the claims even
 5 if many of the claim steps were performed in a sequence different
 6 than that recited in the claims.

7 "Unless the steps of a method actually recite an order, the
 8 steps are not ordinarily construed to require one." Interactive
9 Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1342 (Fed.
 10 Cir. 2001). However, requiring the performance of the steps of a
 11 method in the order recited may "ensue when the method steps
 12 implicitly require that they be performed in the written order."
13 Id.

14 A two-part test is used for "determining if the steps of a
 15 method claim that do not otherwise recite an order, must
 16 nonetheless be performed in the order in which they are written."
17 Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1369 (Fed. Cir.
 18 2003). First, the court looks to the "claim language to determine
 19 if, as a matter of logic or grammar, they must be performed in the
 20 order written." Id. "If not, we next look to the rest of the
 21 specification to determine whether it directly or implicitly
 22 requires such a narrow construction." Id. at 1370 (internal
 23 quotation omitted). "If not, the sequence in which such steps are
 24 written is not a requirement." Id.

25 1. Claim 1 of the '278 Patent

26 This claim discloses the following steps, listed in the order
 27 they are recited in the claim:

28 (1) creating a first application form to a first institution

1 in response to a request from an applicant, the form customized to
2 the preferences of the first institution and including first form
3 data fields for entering applicant information;

4 (2) presenting this first application form to the applicant
5 over a computer network;

6 (3) entering applicant information in the first form data
7 fields;

8 (4) posting the applicant information entered in the first
9 form data fields to a server;

10 (5) storing the posted applicant information in a database
11 (with more info about the database disclosed);

12 (6) creating a second application form to a second institution
13 in response to a request from "the" applicant (as opposed to "a"
14 applicant disclosed in the first step addressing the first
15 application form), the form customized to the preferences of the
16 first institution and including second form data fields for
17 entering applicant information, at least one which corresponds to
18 applicant information not entered into the first form data fields;

19 (7) automatically inserting into some of the second form data
20 fields applicant information from the database;

21 (8) providing the second application form to the applicant
22 over a computer network;

23 (9) entering applicant information into the second form data
24 fields into which information was not inserted from the data
25 storage or into which the data inserted from the data storage is to
26 be changed;

27 (10) posting the applicant information entered into the second
28 form data fields to the server; and

1 (11) automatically storing the applicant information entered
2 into the second form data fields into the database.

3 I conclude that as a matter of logic, the steps of this claim
4 implicitly require that they be performed in the written order.
5 The invention cannot provide the first application to the applicant
6 in step (2) without first creating the first application in step
7 (1). The applicant cannot enter the applicant information in the
8 first application form data fields in step (3), without having been
9 provided the first application in step (2). The applicant
10 information in the first form data fields cannot be posted to the
11 server in step (4), unless it has been entered in step (3). The
12 applicant information cannot be stored in the database in step (5),
13 unless it has been posted in step (4).

14 A second application form disclosed in step (6) cannot be a
15 "second" application form unless there has already been a "first"
16 application form recited in steps (1) - (5). Additionally, the
17 reference in step (6) is to "the" applicant, with the antecedent
18 basis clearly being the applicant who has filled out the first
19 application form data fields in steps (1) - (5). For the server to
20 recognize "the" applicant, "the" applicant's information from the
21 first form must have been stored in the database in step (5).

22 The next step (7) discusses the automatic populating of data
23 stored in the database as a result of steps (1) - (5), into the
24 data fields in the second application created in step (6). Thus,
25 because the second application needs to be created in step (6)
26 before this automatic populating of data into that second
27 application form, and because the first application data has to
28 have been stored in the database as a result of steps (1) through

1 (5), then logically, steps (1) through (5) must occur before step
2 (6) and (6) must occur before (7).

3 Step (7) must occur before step (8). The automatic population
4 of the second form data fields must occur before the second form is
5 provided to the applicant because if the second form data fields
6 were not automatically populated before the applicant received the
7 second form, one of the main purposes of the invention would be
8 defeated, and because if the second form is provided to the
9 applicant before the automatic population of the second form data
10 fields, there appears to be no step to trigger the automatic
11 insertion of this data. Accordingly, steps (1) through (8) must
12 occur in sequence.

13 Next, step (8), which provides the second application form,
14 must occur before step (9) which is where the applicant enters
15 applicant information onto the second form. Then, step (9),
16 entering the new applicant information into the second form, must
17 occur before the posting of the entered applicant information to
18 the server in step (10), and the posting in step (10) must occur
19 before the information is stored in the database in step (11).

20 Thus, as for claim 1 of the '278 patent, I recommend
21 concluding that the steps must be performed in the order recited.

22 2. Claim 32 of the '278 Patent

23 This claim discloses the following steps, listed in the order
24 they are recited in the claim:

25 (1) providing at least two application information files,
26 each describing a customized application for an institution;

27 (2) providing a database for storing applicant information
28 entered on an application and for providing applicant information

1 for inserting into subsequent applications;

2 (3) generating a customized application in response to a
3 request over a computer network from an applicant, the application
4 form and content being specified by one of the at least two
5 application information files, the application including multiple
6 form data fields for entering applicant information;

7 (4) populating the form data fields of the customized data
8 fields of the customized application using applicant information
9 from the database;

10 (5) transmitting the customized application over a computer
11 network to a requesting applicant;

12 (6) completing form data fields of the application that were
13 not populated with applicant information from the database; and

14 (7) automatically storing the applicant information from the
15 database.

16 Here, I disagree with defendant that all of the steps in this
17 claim must be performed in the order recited. I conclude that this
18 method claim could start with either step (1), providing at least
19 two application information files, or step (2), providing a
20 database for storing applicant information. The claim language and
21 specification suggest no reason why either one of these steps must
22 precede the other.

23 However, the claim language makes clear that step (1),
24 providing at least two application information files, must occur
25 before step (3) which requires the generation of a customized
26 application based on the specifics in one of the at least two
27 application information files.

28 The claim language also makes clear that step (4), regarding

1 populating the form data fields of the customized application with
2 applicant information in the database, must occur after both steps
3 (2) and (3). Step (4) requires the information contained in the
4 database outlined in step (2) and it also requires the customized
5 application recited in step (3).

6 For the reasons explained above in the context of steps (7)
7 and (8) of claim 1 of the '278 patent, step (4), addressing the
8 population of the data fields using applicant information in the
9 database, must precede step (5) in which the customized application
10 is transmitted to a requesting applicant.

11 Steps (1) through (5) must precede step (6) because step 6
12 requires the applicant to enter information into the data fields of
13 the customized application that were not automatically populated
14 with information stored in the database. And, step (7) must be
15 preceded by step (6) because it requires storing the information
16 that was entered in step (6).

17 Thus, I recommend concluding that while steps (1) and (2) must
18 precede step (3) and steps (3) through (7) must occur in the order
19 recited, step (1) and step (2) could be performed with either one
20 preceding the other.

21 3. Claim 1 of the '042 Patent

22 This claim discloses the following steps, listed in the order
23 they are recited in the claim:

24 (1) presenting to a form user over a computer network by a
25 third party forms servicer in response to a request by the form
26 user, a form directed to one of multiple institutions of higher
27 education, the form being generated by a forms generator that
28 generates multiple customized forms;

1 (2) entering user information onto the form;
2 (3) entering payment information;
3 (4) the third party forms servicer receiving user information
4 and electronic payment information entered by the user;
5 (5) processing of an electronic payment by the third party
6 forms servicer; and
7 (6) processing the user information by the third party forms
8 servicer.

9 I recommend concluding that the claim language of this claim
10 logically requires the steps to be performed in the sequence in
11 which they are recited except that step (3) could be performed
12 before or after step (2), and steps (5) and (6) could precede each
13 other as long as they follow step (4).

14 4. Claim 16 of the '042 Patent

15 This claim discloses the following steps, listed in the order
16 they are recited in the claim:

17 (1) presenting to a form user over a computer network by a
18 third party forms servicer a form directed to one of the multiple
19 institutions, the forms including fields for the forms user to
20 enter information;

21 (2) receiving by the third party forms servicer over the
22 computer network user information and electronic payment
23 information entered by the user;

24 (3) processing by the third party forms servicer an electronic
25 payment associated with the form;

26 (4) providing by the third party forms servicer the user
27 information to the institution to which the form is directed in a
28 format specified by the institution.

1 Here, step (1) has to precede step (2) because the
2 presentation of the form to the user has to occur before the third
3 party forms servicer can receive any user information or electronic
4 payment information entered by the user. Because step (2) contains
5 the receipt of both the user information and the electronic payment
6 information, there is no way to separate those functions in this
7 claim and it seems clear that the receipt of the information in
8 step (2) must occur before the third party forms servicer can
9 either process the electronic payment information as stated in step
10 (3) or before it can provide the user information to the
11 institution in step (4).

12 This, I recommend concluding that the steps in claim 16 must
13 be performed in the order in which they are recited.

14 5. Claim 28 of the '042 Patent

15 This claim discloses the following steps, listed in the order
16 they are recited in the claim:

17 (1) receiving by an institution from a third party forms
18 servicer user information in format . . ., the user information
19 being derived from a form customized for the institution, . . .;

20 (2) receiving from the form user via the third party form
21 servicer an electronic payment associated with the customized form;
22 and

23 (3) thereby providing to the form user a customized form
24 identified with the institution and providing the institution with
25 custom formatted data and electronic payment.

26 Clearly, steps (1) and (2) have to occur before step (3).
27 However, step (1) does not necessarily need to precede step (2) as
28 they both involve the institution receiving either user information

1 or an electronic payment from or via the third party forms
2 servicer. These could happen simultaneously for example.

3 While step (1) and step (2) must precede step (3), because (1)
4 and (2) could occur simultaneously, I recommend concluding that the
5 steps in claim 38 do not need to be performed in the order in which
6 they are recited.

7 CONCLUSION

8 I recommend construing the claims as discussed in this
9 Findings & Recommendations and concluding that the steps in claim
10 1 of the '278 patent and the steps in claim 16 of the '042 patent
11 must be performed in the order recited.

12 SCHEDULING ORDER

13 The above Findings and Recommendation will be referred to a
14 United States District Judge for review. Objections, if any, are
15 due November 19, 2004. If no objections are filed, review of the
16 Findings and Recommendation will go under advisement on that date.

17 If objections are filed, a response to the objections is due
18 December 3, 2004, and the review of the Findings and Recommendation
19 will go under advisement on that date.

20 IT IS SO ORDERED.

21
22 Dated this 29th day of October, 2004.
23
24

25 /s/ Dennis James Hubel
26 Dennis James Hubel
27 United States Magistrate Judge
28